

CITY OF SAN ANTONIO

Aviation Department



**HIGH TECHNOLOGY REQUEST FOR
COMPETITIVE SEALED PROPOSALS**

(RFP 03-083)

for

**Wireless And Communication System Infrastructure
San Antonio International Airport**

August 15, 2003

- 1.0 SCOPE OF SERVICES
- 1.1 TERM OF CONTRACT
- 1.2 PURPOSE
 - 1.2.1 CORE
 - 1.2.2 EDGE
 - 1.2.3 WIRELESS
 - 1.2.4 CONTRACT MAINTENANCE
 - 1.2.5 SPARES
 - 1.2.6 MANAGEMENT
 - 1.2.7 IDS
 - 1.2.8 TRAINING
- 1.3 ISSUING OFFICE
- 1.4 SUBMISSION OF PROPOSALS
- 1.5 RESTRICTIONS ON COMMUNICATION
- 1.6 SCHEDULE OF EVENTS
- 1.7 PRE-PROPOSAL CONFERENCE
- 1.8 INCURRING COSTS
- 1.9 REJECTION OF PROPOSALS
- 1.10 ECONOMY OF PREPARATION
- 1.11 DISCLOSURE OF PROPOSAL CONTENTS
- 1.12 BENCHMARK, DEMONSTRATION, AND/OR ORAL PRESENTATION
- 1.13 ADDENDA TO THE RFP
- 1.14 SELECTION DATE
- 1.15 RESPONSE DATE
- 1.16 PROPOSAL REQUIREMENTS
- 1.17 STANDARD CONTRACT
- 1.18 PRIME CONTRACTOR RESPONSIBILITIES
- 1.19 CONTRACTOR RESPONSIBILITY PROGRAM
- 1.20 INDEPENDENT CONTRACTOR
- 1.21 NEWS RELEASE
- 1.22 ACCOUNT TEAM
- 1.23 INFORMATION REQUIRED FROM VENDOR
- 1.24 PERFORMANCE BOND
- 1.25 INTELLECTUAL PROPERTY
- 1.26 FUNDINGS CLAUSE
- 1.27 EVALUATION CRITERIA

TAB 1. MANDATORY REQUIREMENTS

TAB 2. MANAGEMENT SUMMARY

San Antonio International Airport Network Vision

TAB 3. FACILITY OVERVIEW

- 3.1 Physical Conditions
- 3.2 Facilities Readiness and Cabling
- 3.3 Site Systems
- 3.4 System Services

TAB 4. TECHNICAL SUPPORT AND SERVICES

- 4.0 TELEPHONE SUPPORT
- 4.1 ADVANCE REPLACEMENTS
- 4.2 FIRMWARE UPGRADES
- 4.3 PROBLEM RESOLUTION PROCEDURE
- 4.4 OTHER SERVICES

TAB 5. VENDOR QUALIFICATIONS

- 5.1 VENDOR PROFILE
- 5.2 FINANCIAL POSITION
- 5.3 RESEARCHES AND DEVELOPMENT
- 5.4 INDUSTRY PARTICIPATION
- 5.5 WARRANTY
- 5.6 REFERENCES

TAB 6. DELIVERY AND INSTALLATION

- 6.1 PRODUCT AVAILABILITY
- 6.2 SITE REQUIREMENTS
- 6.3 SYSTEM SETUP
- 6.4 SYSTEM TEST

TAB 7. TECHNICAL REQUIREMENTS

TAB 8. NETWORK MANAGEMENT AGENT REQUIREMENTS

TAB 9. VENDOR RESPONSE FORMAT VALUE-ADDED CONSIDERATION

TAB 10. EVALUATION CRITERIA

10.1 MANDATORY FEATURES

10.2 EVALUATION OF DESIRED FEATURES

10.3 SHORT LISTED VENDORS

TAB 11. PRICING/OPTIONS

11.1.1 AVAILABLE OPTIONS

11.1.2 SPECIFY PRICING FOR MAINTENANCE

11.1.3 SPECIFY PRICING FOR INSTALLATION

ATTACHMENT A. RESPONDENT QUALIFICATION GENERAL
QUESTIONNAIRE

ATTACHMENT B. CITY OF SAN ANTONIO DISCRETIONARY CONTRACTS
DISCLOSURE

ATTACHMENT C. LITIGATION DISCLOSURE

ATTACHEMNT D. SMALL BUSINESS ECONOMIC DEVELOPMENT
ADVOCACY (SBEDA)

ATTACHMENT E. GOOD FAITH EFFORT PLAN

ATTACHMENT F. PRICING SCHEDULE

ATTACHMENT G. INSURANCE REQUIREMENTS

ATTACHMENT H. INDEMNIFICATION REQUIREMENTS

ATTACHMENT I. PROPOSAL CHECKLIST

TAB 12. APPENDIXES

APPENDIX A

APPENDIX B

APPENDIX C

APPENDIX D

APPENDIX E

APPENDIX F

BACKGROUND

City of San Antonio

The City of San Antonio was incorporated in 1837 and chartered in 1951. It has a Council-Manager form of government with ten Council members and a Mayor, each service two-year terms, limited to two consecutive terms. San Antonio is a City of 1.2 million people and covers 417 square miles. It is located in Bexar County, which has a population of 1.4 million and 1,249 square miles. San Antonio hosts 7 million visitors per year. The City of San Antonio employs approximately 11,000 employees and has an annual budget of approximately \$1.1 billion.

San Antonio International Airport

San Antonio International Airport (SAIA) is located in north central San Antonio, approximately eight miles or 15 minutes from the downtown central business district. It is easily accessed from the major freeways into and around San Antonio. SAIA covers 2,600 acres and is the primary airport serving the city and metropolitan area. SAIA has two terminals serving the public. Terminal One was built in 1984. Terminal 2 was constructed in 1953 with a satellite concourse added in 1968 Terminal 1: 395,000 square feet with 16 gates Terminal 2: 210,000 square feet with 12 gates.

The San Antonio Airport System is operated by the City of San Antonio Department of Aviation. The Department of Aviation employs 400 people to support the 24-hour operation of both SAIA and Stinson Municipal Airport. Airport operations and improvements at SAIA and Stinson are paid for by user fees, bond funds and money from the Aviation Trust Fund, which is disbursed by the Federal Aviation Administration.

1.0 SCOPE OF SERVICES

The City of San Antonio Aviation Department, which operates the San Antonio International Airport wishes to develop a first rate electronic information system. This will involve the information technology infrastructure with added features of wireless for both the public and private sector of the airport. All hardware including the edge devices (switches, wireless access point, antennas), core device (connection to edge, to downtown, to IDS systems, VPN systems) and all supporting hardware is to be installed. All software for managing the network, IDS, VPN, load balancing and that software deemed necessary to have complete control over every device shall be included. It is anticipated that training for 5 personnel for the complete control of the system will be provided. Spare parts that are deemed necessary (Access, point, etc.) shall be provided. A one-year contract for next day replacement and help shall be priced into the RFP. All equipment shall meet open standards (802.11i, etc.) Pricing shall include installation, testing, equipment, training, next day help replacement for one year, and any item that may be deemed necessary to achieve a first class information technology infrastructure for an international airport.

1.1 TERM OF CONTRACT

The contract will be for installation, 1 year 7/24 support, training, parts and labor. The City shall have the option to extend for an additional one (1) one year period based upon mutual consent of the City and vendor.

1.2 PURPOSE

The City of San Antonio ("City") is seeking Competitive Sealed High Technology Proposals from qualified Respondents interested in providing a state-of-the-art wireless and communication system infrastructure system for the San Antonio Airport as described in this Request for Competitive Sealed Proposals (RFP).

The general description of this need is as follows.

1.2.1 CORE

This complex set of hardware will tie all departments into a 10/100/1000 base network. For example, it will allow communication for the fire department to talk to a server at 100 times the current speed. It can be programmed to be secure from hacking; route traffic based on machine addresses, and traverses the fiber to downtown at 1 GIG.

The core is made up of many components that tie all departments together via fiber, route traffic to servers or the internet, allowing more security than just the machine addresses (MAC) techniques, is redundant in its ability to fail over if the current routing goes down and handles many different protocols.

1.2.2 EDGE

The edge (more commonly called switches) takes traffic from PCs, laptops, wireless devices, and any other device that has an Ethernet network card. At these switches that connect to the core and wireless access devices, as well as those mentioned above, is the ability to further program the switches for security purposes. Unknown devices can be kept out, known devices can only be allowed certain privileges, quality of service can be implemented. That is, the city can add phones via the internet later and expect the switch will prioritize these, and the switch has logic to find the fastest path.

1.2.3 WIRELESS

The wireless system is dual mode. One mode at 54 GPS will be for the private side. This gives the airport the ability to develop AOA applications, parking inventory application, fire department application, and essentially any program that can run on a standard desktop can be run on a wireless PC, pocket PC, etc. The access points are programmable to create a very tight security system. Encryption of 128 bit, along with what is called VPN (Virtual Private Network) will be applied for both private and public. VPN is nothing more than allowing certain devices to be routed to certain locations and nowhere else. The public side of wireless will allow travelers to access their e-mail, internet and even applications their company may have in place. Examples would be a salesman who wants to know if a given item is in stock before he meets with his client.

1.2.4 CONTRACT MAINTENANCE

This aspect of the package will allow the complete system to have a 7/24 call to the provider when a problem occurs. This is a one-year contract for both hardware and software. A local representative will provide this for the City. Additional contact will be made for further enhancements.

1.2.5 SPARES

Spares will be those parts of the core and edge devices necessary to keep the system up and running. If an edge device (switch) goes out, we can dispatch an ET (Electronic Tech) to swap out this part.

1.2.6 MANAGEMENT

This is the software to program the edge devices, wireless access devices, core devices, Intrusion Detection System (IDS) to be explained later, and manage certain servers. This package allows the system to be secure and maximize hardware capabilities.

1.2.7 IDS

The Intrusion Detection System (IDS) has a complete hardware and software package that is meant to thwart hackers (internally or externally), detect, and alarm unauthorized attempts to enter the communication system of the airport.

1.2.8 TRAINING

This package as the name implies is to train the airport system analysis and off-site city system analysis to manage and program all hardware and manage software necessary for the complete system. This would be for the IDS, edge devices, wireless devices, core devices, and associated software.

1.3 ISSUING OFFICE

Mailing Address:

City Clerk's Office

Attn: RFP03-083 "HIGH TECHNOLOGY REQUEST FOR COMPETITIVE SEALED PROPOSAL FOR WIRELESS AND COMMUNICATION SYSTEM INFRASTRUCTURE"
P.O. Box 839966,
San Antonio, Texas 78283-3966

Physical Address:

City Clerk's Office,

Attn: RFP03-083 HIGH TECHNOLOGY REQUEST FOR COMPETITIVE SEALED PROPOSAL FOR WIRELESS AND COMMUNICATION SYSTEM INFRASTRUCTURE"
100 Military Plaza
2nd floor, City Hall
San Antonio, Texas 78205

Proposals sent by facsimile or email will not be accepted.

1.4 SUBMISSION OF PROPOSALS:

Respondent shall submit **SIX (6)** copies of the Sealed Proposal, the original signed in ink, in a sealed package with "RFP03-083 "HIGH TECHNOLOGY REQUEST FOR COMPETITIVE SEALED PROPOSAL FOR WIRELESS AND COMMUNICATION SYSTEM INFRASTRUCTURE" clearly marked on the front of the package. A sealed envelope containing the price schedule should be marked "PRICING" and submitted inside the first

sealed envelope. All Proposals must be received in the City Clerk's office no later than **2 p.m. central time Monday, September 15, 2003** at the address above. Any Proposal received after this time shall not be considered.

Proposal Format:

1.4.1 Each proposal shall be typewritten and submitted on 8 ½" x 11" white papers inside a three ring binder. Font size shall be no less than 12-point type. All pages shall be double spaced and printed on one side only. Margins shall be no less than ¾" around the perimeter of each page. Each page shall be numbered. Electronic files shall not be included as part of the proposal; compact disks and/or computer disks submitted as part of the proposal shall not be considered. Each proposal must include the sections and attachments in the sequence listed in the Proposal Requirements Section, and each section and attachment must be indexed and divided by tabs and indexed in a Table of Contents page. Failure to meet the above conditions may result in disqualification of the proposal.

1.4.2 Respondents who submit responses to this RFP shall correctly reveal, disclose, and state the true and correct name of the individual, proprietorship, corporation, and /or partnership (clearly identifying the responsible general partner and all other partners who would be associated with the contract, if any). No nick-names, abbreviations (unless part of the legal title), shortened or short-hand, or local "handles" will be accepted in lieu of the full, true and correct legal name of the entity. These names shall comport exactly with the corporate (or other registered business entities) and franchise records of the Texas Secretary of State and Texas Comptroller of Public Accounts. Individuals and proprietorships, if operating under other than an individual name, shall match with exact Assumed Name filings. Corporate Respondents and limited liability company Respondents shall include the 11-digit Comptroller's Taxpayer Number on the signature page of the Proposal.

1.4.3 If an entity is found to have incorrectly or incompletely stated its name or failed to fully reveal its identity on the signature page of its proposal, the Director of Purchasing and General Services shall have the discretion, at any point in the contracting process, to suspend consideration of the proposal.

1.4.4 All provisions in Respondent's proposal, including any estimated or projected costs, shall remain valid for one hundred eighty (180) days following the deadline date for submissions or, if a proposal is accepted, throughout the entire term of the contract.

1.4.5 All proposals become the property of the City upon receipt and will not be returned. Any information deemed to be confidential by Respondent should be clearly noted on the page(s) where confidential information is contained; however, the City cannot guarantee that it will not be compelled to disclose all or part of any public record under the Texas Public Information Act, since information deemed to be confidential by Respondent may not be considered confidential under Texas law, or pursuant to a Court order.

1.4.6 Any cost or expense incurred by the Respondent that is associated with the preparation of the Proposal, the Pre-Proposal conference, if any, or during any phase of the selection process, shall be borne solely by Respondent.

1.5 RESTRICTIONS ON COMMUNICATION:

1.5.1 Once the RFP has been released, Respondents are prohibited from communicating with City staff regarding the RFP or Proposals, with the following exceptions:

1.5.2 Questions concerning this RFP shall be directed, in writing only, to the Purchasing and General Services Department Attn: Don W. Smith, Sr Buyer, at 131 W Nueva, San Antonio, TX 78283. Verbal questions and explanations are not permitted other than as described by this section and during interviews, if any. It is suggested that all questions be sent by certified mail, return receipt requested; however, electronic submissions by facsimile or e-mail will be accepted at (210-207-7270) or dsmith3@sanantonio.gov. No inquiries or questions will be answered if received after **10 A.M. on August 28, 2003**, to allow ample time for distribution of answers and/or amendments to this RFP.

1.5.3 Respondent shall not contact City employees before an award has been made, except as set out herein. Violation of this provision by Respondent or his agent may lead to disqualification of his proposal from consideration.

1.5.4 The City reserves the right to contact any Respondent for clarification after responses are opened and/or to further negotiate with any Respondent if such is deemed desirable by City.

1.6 SCHEDULE OF EVENTS

Following is a list of **projected dates** with respect to this RFP:

RFP Solicitation Period	August 15
Final Questions Accepted	August 28
Pre-Proposal Conference	August 29
Proposals Due	September 15
Evaluations Conducted	September 22
Contract considered by City Council	October 9

1.7 PRE-PROPOSAL CONFERENCE

A Pre-Proposal Conference will be held at 9800 Airport Blvd. in the conference room Terminal # 1 2nd floor in the Mezzanine on **August 29, 2003 at 1:00 P.M.** Respondents are encouraged to prepare and submit their questions in writing 3 calendar days in advance of the Pre-Proposal Conference in order to expedite the proceedings. City's responses to questions received by this due date may be distributed at the Pre-Proposal Conference and posted on the City's website at <http://www.sanantonio.gov/rfp/>. Respondents who do not have access to the Internet must notify City in accordance with Section 1.5, Restrictions on Communication, if Respondent wishes to receive copies of City's responses by mail. Attendance at the Pre-Proposal Conference is optional.

1.8 INCURRING COSTS

The CITY is not liable for any cost or expense incurred by the vendors in the preparation of their proposals or for attendance at any conferences or meetings prior to award of this RFP.

1.9 REJECTION OF PROPOSALS

CITY reserves the rights to, at any time and in its sole discretion, reject any and all proposals received as a result of this request, or to negotiate separately with any and all competing vendors.

1.10 ECONOMY OF PREPARATION

Proposals should be prepared simply and economically, providing a straightforward, concise description of the vendor's ability to meet the requirements of this RFP. Sections must be tabbed and pages numbered consecutively for ease of review. Responses must be provided in the same TAB and in the same sequence as the questions asked. If a question is not applicable or has no answer so state.

All supporting documentation, such as Vendor Literature, White Papers, and the like shall be included in a separate TAB labeled as such.

1.11 DISCLOSURE OF PROPOSAL CONTENTS

Cost and price information provided in proposals will be held in confidence by CITY and will not be revealed to, or discussed with, third parties until after the contract award. The proposal

of the selected vendor becomes part of any contract entered into and is therefore, confidential. All other material submitted becomes the property of CITY and may be returned only at the City's option. The CITY has the right to use any or all system ideas presented in any reply to this RFP. Selection or rejection of the proposal does not affect this right.

1.12 BENCHMARK, DEMONSTRATION, AND/OR ORAL PRESENTATION

The CITY reserves the right to require, and the vendor should plan to perform, prior to the selection of a proposal, an operational demonstration of the vendor's proposed solution and/or an oral presentation on any hardware, software, support services, or any other capabilities included in the proposal. If the CITY determines that a demonstration and/or an oral presentation are required, the CITY will not be responsible for any travel and/or accommodation costs. A member of the City's Evaluation Committee MAY schedule these presentations. The inability of the vendor to conduct the demonstration and/or an oral presentation within ten (10) working days of written notification by the RFP Evaluation Committee Chairperson may result in disqualification. Quotation of future products, provided that delivery will meet proposed implementation deadlines, is allowed but should be noted in the proposal response, including projected delivery dates.

A written summary of the demonstration, and/or oral presentation prepared by the vendor and submitted to the CITY will be regarded as confidential and will become part of the vendor's proposal. A list of attendees and copies of the agenda and all visuals should accompany the written summary. The written summary will be considered part of the technical proposal.

1.13 ADDENDA TO THE RFP

If it becomes necessary to revise any part of this RFP, addenda will be provided to all vendors who received the original RFP. All addenda will become part of this RFP.

1.14 SELECTION DATE

The City of San Antonio anticipates a selection will be made at the end of 10/30/03. The proposed Project Implementation is as follows:

- 1.14.1 City of San Antonio will commit to a pre-proposal meeting to be held at the SA Intl. Airport. Vendors will be given an RFP if needed.
- 1.14.2 Questions can be asked at this meeting. Additionally, a site survey can be given.
- 1.14.3 Proposal packages will be received 2 weeks from this meeting.
- 1.14.4 Any technical question can be asked of the SA Intl Airport Team (team).
- 1.14.5 No disclosure of other proposal responses will be discussed.
- 1.14.6 The team will evaluate proposal responses based on a point system (technical, previous work, financial, etc).
- 1.14.7 Based on the evaluation a vendor will be selected and notified.
- 1.14.8 Upon completion of financial negotiations a time frame shall be submitted by the vendor detailing segmented work completion.
- 1.14.9 Work shall then proceed.
- 1.14.10 Completion should be within 4 weeks of start date.

1.15 RESPONSE DATE

To be considered, proposals must arrive at the designated location, on or before the date and time specified. Vendors mailing proposals should allow adequate time for delivery. It is incumbent upon the vendor to assure that the proposal is received by the deadline.

1.16 PROPOSAL REQUIREMENTS

To be considered, vendors' proposals must consist of a complete response using the format provided in Part II of this RFP. PRICING must be present in the PRICING/OPTIONS portion of the proposal. Each proposal must be submitted in 6 copies as specified in PART II FORMAT FOR REQUIRED INFORMATION. The vendor will make no other distribution of proposals. An official authorized to bind the vendor to its provisions must sign proposals: It must be an original signature on company letterhead and it must be included in your proposal. The contents of the proposal of the successful vendor and this RFP will become contractual obligations when a contract is entered into. For this RFP, the proposal must remain valid until a contract is executed. Failure to meet any of the above requirements will result in disqualification.

Respondent's Proposal shall include the following items in the following sequence:

1.16.1 LETTER OF SUBMITTAL A Letter of Transmittal must be included with each proposal. The Letter of Transmittal must include the typed name of the company submitting the proposal, the signature, name and title of the person authorized to contractually obligate the organization, the names, titles, and telephone numbers of the persons to be contacted for clarification of the proposal, a statement explicitly stating acceptance of the requirements, terms, and conditions within this Request for Competitive Sealed Proposal, and a statement acknowledging receipt of any and all amendments to this Request for Competitive Sealed Proposal.

1.16.2 EXECUTIVE SUMMARY: The summary shall include a statement of the work to be accomplished, how Respondent proposes to accomplish and perform each specific service and unique problems perceived by Respondent and their solutions.

Management Summary

Mandatory Requirements

Facility Overview

Technical Support and Services

Vendor Qualifications

Delivery and Installation

Technical Requirements

Network Management Agent Requirements

Vendor Response Format—Value-Added Considerations

Evaluation Criteria

Pricing/Options

Terms and Conditions

1.16.3 TABS RESPONSE: The response to the TABS of PART II of this RFP, including the PRICING/OPTIONS TAB as well as the Suggested TAB List. **Suggested TABS should be formatted to your specific proposal requirements.*

1.16.4 RESPONDENT REFERENCES, QUALIFICATIONS AND GENERAL QUESTIONNAIRE:

Background of Respondent and support personnel, including professional qualifications and length of time working in Respondent's capacity. Include résumés of key personnel for services that Respondent proposes to perform.

Relevant experience of Respondent as it relates to the scope of services contemplated by the RFP.

Specific experience with public entity clients, especially large municipalities. If Respondent has provided services for the City in the past, identify the name of the project and the department for which Respondent provided those services. If Respondent is proposing as a team or joint venture, provide the same information for each member of the team or joint venture.

Other resources, including total number of employees, number and location of offices, number and types of equipment available to support this project.

Respondent shall provide three (3) references, preferably from municipalities, for whom Respondent has provided services. Include current phone number for each reference.

If Respondent has had experience in working as a member of a joint venture or team, describe that experience, including the type of project for which the joint venture or team was formed.

1.16.5 DISCRETIONARY CONTRACTS DISCLOSURE: Completed Discretionary Contracts Disclosure Form. (Attachment B) If Respondent is proposing as a team or joint venture, then all parties to that team or joint venture shall complete and return this form with the proposal.

1.16.6 LITIGATION DISCLOSURE: Completed Litigation Disclosure Form. (Attachment C) If Respondent is proposing as a team or joint venture, then all parties to that team or joint venture shall complete and return this form with the proposal.

1.16.7 SMALL BUSINESS ECONOMIC DEVELOPMENT ADVOCACY (SBEDA) POLICY REQUIREMENTS. Completed SBEDA forms (Attachment D).

1.16.8 PRICING SCHEDULES: List all fees associated with the provision of services by Respondent, if selected. (Attachment E)

1.16.9 INSURANCE: If selected, Proposer will be required to provide the insurance requirements listed under Appendix. In addition, the selected Proposer will be required to post a Performance Bond commensurate with the total amount of the Contract.

1.16.10 BROCHURES: Include brochures and other relevant information about Respondent you wish the City to consider in its selection. Include these brochures and any vendor supplied material to support the proposal, including product or other brochure in a separate section.

1.16.11 PROPOSAL CHECKLIST: Completed proposal checklist. (Attachment I)

Respondent is expected to examine this RFP carefully, understand the terms and conditions for providing the services listed herein and respond completely. Failure to complete and provide any of these documents may result in the respondent's proposal being deemed non-responsive and therefore disqualified from consideration.

1.16.12 AMENDMENTS TO RFP: Changes or amendments to this RFP, if required, will be posted on the City's website at <http://www.sanantonio.gov/rfp/>. It is Respondent's responsibility to review this site and ascertain whether any amendments have been made prior to submission of a proposal.

1.17 STANDARD CONTRACT

Negotiations will be undertaken with the vendor whose proposal best meets the needs of CITY. These negotiations with City will result in a formal contract between the parties.

The contract will contain, but is not limited to, the following terms and conditions. Notwithstanding the foregoing, these terms and conditions will be conditioned for actual scheduled work segments, such as phased implementations and payments, deliverables, and total completion.

If, in the opinion of the City, contract negotiations with the selected vendor cannot be concluded within a reasonable time frame following the selected vendor's receipt of a draft contract, the CITY may, in its discretion, immediately discontinue negotiations with the selected vendor and commence negotiations with the vendor who received the next highest number of evaluation points.

1.18 PRIME CONTRACTOR RESPONSIBILITIES

The selected vendor will be required to provide various maintenance programs for the hardware, software, and support services offered in the proposal whether or not they are manufactured or produced by the selected vendor. Further, the CITY will consider the selected vendor to be the sole point of contact with regard to contractual matters, including payment of any and all charges resulting from the cost of any contract.

All subcontractors must be identified in the proposal and approved by City.

1.19 CONTRACTOR RESPONSIBILITY PROGRAM

Vendors must state that neither they nor any subcontractor(s) are currently under bidding list suspension or debarment by the City, any state, or the federal government. If it is later discovered that any violations have occurred, the CITY may reject any proposal or rescind any contract awarded pursuant to this RFP.

1.20 INDEPENDENT CONTRACTOR. Respondent agrees and understands that, if selected, it and all persons designated by it to provide services in connection with a contract, is (are) and shall be deemed to be an independent contractor(s), responsible for its (their)

respective acts or omissions, and that City shall in no way be responsible for Respondent's actions, and that none of the parties hereto will have authority to bind the others or to hold out to third parties, that it has such authority.

1.21 NEWS RELEASE News releases pertaining to this RFP may not be made without City's and vendors' prior written approval. The parties agree that no information regarding this RFP or derived there from shall be announced, publicized, or advertised without the express written consent of the other party.

1.22 ACCOUNT TEAM Vendor must indicate how its account team is structured. It is desirable to have an account team consisting of the following:

- Inside and Outside Sales Representative
- Proposal Specialist
- System Engineer
- Service Contract Representative

1.23 INFORMATION REQUIRED FROM VENDOR

To be considered for evaluation, vendor's proposal must:

1.23.1 Respond to all requirements in PART II of the RFP.

1.23.2 Respond to each question or statement and submit in the same TABBED section in which it is presented.

1.23.3 Reproduce the question or statement including its number in its entirety, and then follow it with the response.

1.23.4 Number pages consecutively.

1.23.5 Provide the publication number and page number if any publications are supplied in response to a TAB, question, or statement. Proposals not providing the publication number and page number will not be considered to have appropriate reference material included. In that case, each such response will be considered inappropriate and that particular TABBED section, question, or statement will not be evaluated; this could have an adverse effect on the vendor's technical score.

1.23.6 The CITY requires the vendor's entire TECHNICAL SOLUTION, to be submitted on a CD or floppy disk in Microsoft WORD 7.0 or higher format.

1.24 PERFORMANCE BOND

If selected, Respondent shall provide a performance bond made payable to the City of San Antonio, executed by a corporate surety acceptable to City who is licensed pursuant to the Texas Insurance Code in the full amount of the contract price as estimated by projection of the City. Said bond must be in a form acceptable to City. Said bond shall further provide that the surety shall indemnify the Obligee for all damages or losses resulting from the Principal's default. Said bond shall further guarantee the Principal's performance of all terms and obligations under the contract awarded. Said bond must have attached thereto a Power of

Attorney as evidence of the authority of the person executing the bond to bind the surety. This bond must be furnished in compliance with the statutory requirements of the Texas Government Code, chapter 2253 within Ten (10) days after request. The bond must be executed and delivered to City prior to commencement of work under the contract awarded pursuant to this RFP.

1.25 INTELLECTUAL PROPERTY

If selected, Respondent agrees to abide by the following regarding intellectual property rights:

Respondent shall pay all royalties and licensing fees. Respondent shall hold the City harmless and indemnify the City from the payment of any royalties, damages, losses or expenses including attorney's fees for suits, claims or otherwise, growing out of infringement or alleged infringement of copyrights, patents, materials and methods used in the project. It shall defend all suits for infringement of any Intellectual Property rights. Further, if Respondent has reason to believe that the design, service, process or product specified is an infringement of an Intellectual Property right, it shall promptly give such information to the City.

Upon receipt of notification that a third party claims that the program(s), hardware or both the program(s) and the hardware infringe upon any United States patent or copyright, Respondent will immediately:

Either:

Obtain, at Respondent's sole expense, the necessary license(s) or rights that would allow the City to continue using the programs, hardware, or both the programs and hardware, as the case may be, or,

Alter the programs, hardware, or both the programs and hardware so that the alleged infringement is eliminated, and

reimburse the City for any expenses incurred by the City to implement emergency backup measures if the City is prevented from using the programs, hardware, or both the programs and hardware while the dispute is pending.

Respondent further agrees to:

assume the defense of any claim, suit, or proceeding brought against the City for infringement of any United States patent or copyright arising from the use and/or sale of the equipment or software under this Agreement,

assume the expense of such defense, including costs of investigations, reasonable attorneys' fees, expert witness fees, damages, and any other litigation-related expenses, and indemnify the City against any monetary damages and/or costs awarded in such suit;

Provided that:

- Respondent is given sole and exclusive control of all negotiations relative to the settlement thereof, but that respondent agrees to consult with the City Attorney of the City during such defense or negotiations and make good faith effort to avoid any position adverse to the interest of the City,
- That the Software or the equipment is used by the City in the form, state, or condition as delivered by Respondent or as modified without the permission of Respondent, so long as such modification is not the source of the infringement claim,
- That the liability claimed shall not have arisen out of the City's negligent act or omission, and that the City promptly provide Respondent with written notice within 15 days following the formal assertion of any claim with respect to which the City asserts that respondent assumes responsibility under this section.

1.26 FUNDINGS CLAUSE

In the event that through no action initiated by the City of San Antonio, the City's legislative body does not appropriate funds for the continuation of this Agreement for any fiscal year after the first fiscal year and has no funds to do so from other sources, this Agreement may be terminated. To effect this termination, the City of San Antonio shall, 30 days prior to the beginning of the fiscal year for which funds are not appropriated, send the successful vendor written notice stating that the City of San Antonio failed to appropriate funds.

1.27 EVALUATION CRITERIA:

The City will conduct a comprehensive, fair and impartial evaluation of all Proposals received in response to this RFP. The City may appoint a selection committee to perform the evaluation. Each Proposal will be analyzed to determine overall responsiveness and qualifications under the RFP. Criteria to be evaluated will include the items listed below. The selection committee may select all, some or none of the Respondents for interviews. If the City elects to conduct interviews, Respondents may be interviewed and re-scored based upon these same criteria. The City may also request additional information from Respondents at any time prior to final approval of a selected Respondent. The City reserves the right to select one, or more, or none of the Respondents to provide services. Final approval of a selected Respondent is subject to the action of the City of San Antonio City Council.

The successful vendor will be determined by a series of measures and stages. Vendor must meet a set of minimum evaluation criteria in order to be considered. Complete answers to the RFP will be the first indicator of how well a vendor meets the needs of the San Antonio Aviation Department. The RFP will be scored on a one hundred-point scale as outlined below. The City may short list proposals and invite vendors to demonstrate the availability and ease of use of key functionality of their proposed system. This demonstration will be accomplished through a scripted demonstration developed by SAIA and City staff. The demonstration will be forwarded to the selected vendor prior to the presentation to give ample time for preparation and compliance with the script. All vendors will be expected to closely follow the script to ensure consistency among vendor or demonstrations. Following the demonstrations, each

vendor will be ranked as Highly Advantageous, Advantageous, Acceptable or Unacceptable without regard to the price proposal. Finally, the price proposal will be taken into consideration.

•	Experience of Firm	15%
•	Functionality/Technical	25%
•	SBEDA	20%
•	Demonstration	20%
•	Price	<u>20%</u>
	TOTAL	100%

1.27.1 MINIMUM EVALUATION CRITERIA

Minimum Evaluation Criteria reflect those standards or attributes that the City considers essential to the satisfactory performance of the contract. The City will use the Minimum Evaluation Criteria to assist in identifying “responsive” proposals (those containing all of the required forms and information and offering all of the requested supplies and services in the RFP) and to identify vendors who are “responsible” (those who possess the capability, integrity and reliability to perform under the contract.)

The City will evaluate each proposal to determine whether it meets all Minimum Evaluation Criteria. Responses to the Minimum Evaluation Criteria Questions must be unconditionally “Yes” or “No.” Written validation of vendor’s responses may be requested at any time during this process.

Note: If a proposal fails to satisfy any one of the Minimum Evaluation Criteria, the proposal will automatically be eliminated from all further consideration.

- _____1. Does your proposal provide references for at least five customers who have installed the proposed system, including one that meets the size and criteria noted in Vendor Evaluation/Comparable Institutions section (page 14)
- _____2. Has an authorized representative of your firm signed the proposal where required and returned each of the following forms as part of the non-price proposal?
 - Good Faith Effort Plan SBEDA Form 117C
 - Ethics Ordinance Required Disclosures Form
 - Litigation Disclosure Form
 - Insurance Requirements
 - Indemnification Requirements

1.27.2 VENDOR EVALUATION

Vendor responses will be scored on a one hundred point scoring system. Each evaluated section will be assigned a maximum number of points that may be scored. Due to the complexity and scope, some sections may be assigned an additional sub scoring system. In this case, the total point score for that section will be based on the percentage of total points received as compared to the total.

For example: The “Functional Components” evaluative section is assigned thirty-five points and the sub scoring system has a maximum of three hundred points. If the vendor receives 260 of the sub score points, then the “Functional Components” Evaluative section will receive a total of 26 points (86.67% of the total).

1.27.3 BEST AND FINAL OFFER

The City reserves the right to pursue best and Final Offers and may choose to do so with a short list of Proposer(s) based on initial proposal scoring. Only selected vendors meeting the standards determined by the City may submit a Best and Final Offer. In the event that Best and Final Offers are requested, the City will notify qualified vendors in writing. All responses to the Best and Final Offer must be submitted in writing. The City will not consider any proposal not submitted in writing.

1.27.4 COMPARABLE INSTALLATIONS

The vendor must demonstrate that it has made installations in comparable institutions. Evaluators will use the responses to any additional customer information provided and interviews with current customers to form the rating for comparable installations.

1.27.5 VENDOR PROFILE

San Antonio Aviation Department is looking for a vendor that demonstrates a long term potential for providing excellent service and products. The vendor must demonstrate its financial stability, market performance, customer responsiveness and commitment to quality personnel.

1.27.6 VENDOR PERSONNEL

Provide resumes of key executive officers, including Heads of Product Development, Marketing, and Product Support. List key team members in these three departments, including all those who will be assigned to work with Aviation Department. Please include the length of service with your firm for these employees. Indicate the amount of time they will be expected to work with aviation department during implementation and on an ongoing basis. Note any key personnel who are actually consultants with your firm instead of employees.

1.27.7 CUSTOMER RESPONSIVENESS

The vendor should describe what customer feedback mechanisms are in place in terms of user groups, a process of eliciting software improvement requests, and willingness and ability to do customized programming.

1.27.8 CUSTOMER REFERENCES

The vendor should provide at least 3 references giving a contact name, address, telephone number and email address.

This RFP does not commit City to enter into a Contract, award any services related to this RFP, nor does it obligate City to pay any costs incurred in preparation or submission of a proposal or in anticipation of a contract.

If selected, Respondent will be required to comply with the Insurance and Indemnity Requirements established herein.

1.27.9 CONFLICTS OF INTEREST.

Respondent acknowledges that it is informed that the Charter of the City of San Antonio and its Ethics Code prohibit a City officer or employee, as those terms are defined in the Ethics Code, from having a financial interest in any contract with City or any City agency such as City-owned utilities. An officer or employee has a “prohibited financial interest” in a contract with City or in the sale to City of land materials, supplies or service, if any of the following individual(s) or entities is a party to the contract or sale: the City officer or employee; his parent; child or spouse; a business entity in which he or his parent, child or spouse owns ten (10) percent or more of the voting stock or shares of the business entity, or ten (10) percent or more of the fair market value of the business entity; or a business entity in which any individual or entity above listed is a subcontractor on a City contract, a partner or a parent or subsidiary business entity.

Respondent is required to warrant and certify that it, its officers, employees and agents are neither officials nor employees of the City, as defined in Part B, Section 10 of the City’s Ethics Code. (Discretionary Contracts Disclosure – Attachment H)

TAB 1. MANDATORY REQUIREMENTS

Each of the following mandatory requirements must be addressed in this TAB by indicating acceptance of each.

YES	NO	
_____	_____	1. Have you submitted a complete response to this RFP using the format provided in Part II?
_____	_____	2. Does your proposal contain a cover letter on company letterhead with an original signature of an official of your company authorized to bind your company to its provisions?
_____	_____	3. Do you agree that the contents of your proposal will become part of any contract that may be entered into as a result of this RFP?
_____	_____	4. Do you agree that your proposal will remain valid until a contract is executed?
_____	_____	5. Have you submitted two copies of your proposal and two CDs or floppy disks (containing the RFP) to the location specified in the RFP cover letter?
_____	_____	6. Do you agree to make no other distribution of your proposal?
_____	_____	7. Has the PRICING section been identified as "PRICING/OPTIONS" and included with the RFP response in a separately tabbed section.
_____	_____	8. Do you agree that unless all copies of your proposal arrive at the location, by the time, date, and place specified in the RFP cover letter, that it would be immediately disqualified?
		9. Do you agree that all proposed hardware, including features, will be acceptable only if:
		A. Prior to the proposal submission deadline it is (or is described and noted as future product, available by date of implementation):
_____	_____	1) Available for general sale and use unless agreed upon before delivery.
_____	_____	2) Demonstrable.
_____	_____	3) Operational in a user's installation other than the vendor's.
_____	_____	4) Operational is a user's installation other than a BETA site, test site, or site where the hardware was provided at little or no cost to the user.
_____	_____	5) New (unused).
_____	_____	6) provided the equipment remains under a Service Contracts Agreement; replacement parts will be available for a minimum of three years.
_____	_____	7) Backed up by guarantees that maintenance will be available for a minimum of three years.
		B. On the date of the proposed installation it:

- _____ 1) Is still in production.
- _____ 2) Will remain in production for at least one year.
- _____ 10. Do you agree that all proposed software will be acceptable only if (or is described and noted as future product, available by date of implementation):
- _____ A. The software vendor for general license and use prior to the proposal submission deadline released it.
- _____ B. It performs in accordance with published specifications supplied by the software vendor.
- _____ C. It is maintained by the software vendor, or authorized representative.
- _____ D. Your firm will act as official representatives for the software proposed and will be the primary contact for software support, or will direct CITY to the appropriate software support contacts.
- _____ 11. Do you agree that the CITY will not be liable for any payment until the CITY has determined that the standard of performance as addressed in the STANDARD CONTRACT has been satisfactorily completed?
- _____ 12. Do you accept the provisions of the PRIME CONTRACTOR RESPONSIBILITIES paragraph of this RFP?
- _____ 13. Do you accept the provisions of the BENCHMARK, DEMONSTRATION, and ANY/OR ORAL PRESENTATION paragraph of this RFP?
- _____ 14. Do you agree that any contract that may result from this RFP will be a MAXIMUM PRICE CONTRACT ?
- _____ 15. Do you agree that your key personnel, once assigned to the CITY project, will not be reassigned to another project without City's written consent?
- _____ 16. Have you provided evidence that the individuals who will do the installation are qualified for that service?

TAB 2 MANAGEMENT SUMMARIES

“Building a multimedia network for a work-class company requires careful planning and a strategic commitment, and agreement on an approach that leverages computer technology toward the end of enhancing the business/sales process. SAIA has built a backbone network based on 10 Mbps technology, which has provided a foundation on which to build a high-speed network. The purpose of this procurement will be to, while using the existing fiber and copper framework, create a high capacity communications network at minimal cost.

The product of this RFP is the production of a high-speed network that will support audio, video, and digital information services. Its purpose is to support distance learning, research, and cooperative partnerships between corporate and remote sites. Connections to the corporate research center will be enhanced and allow easy access to all of the on-line resources available at the center. Employees connected to the network will have the ability to access facilities and resources located anywhere on the local network or anywhere in the world via the Internet producing a virtual campus.

San Antonio International Airport Network Vision

The CITY requires the following:

- Expansion of the TCP/IP enterprise network to a high speed switched Local Area Network (LAN), Wide Area Network (WAN);
- Provide hardware and/or software which will allow TCP/IP users to connect to the current systems until the migration to the new system is complete;
- Provide scaleable equipment, bandwidth and/or simple upgrade capacity to handle high bandwidth demands of future applications such as, graphical records management, video-conferencing and other graphic-oriented systems needing frequent and ubiquitous file transfers;
- Develop an enterprise network that can be managed centrally and extensively in the areas of network transport, desktop and file servers technologies;
- Provide certification training for up to four staff members on all networking equipment used in your solution.

TAB 3. FACILITY OVERVIEW

3.1 Physical Conditions

- International Airport with 8 local buildings
- All sites have wiring closets and multimode fiber
- 2 sites are involved—SA Intl. and Stinson (via Wireless)
- All locations are within ¾ mile from Terminal 1.
- The central network site is Terminal 1 and remote sites (see Appendix D drawing)
- 12 Locations have been define for the switches
- All switches are in wiring closets within ¾ miles of each other.
- Current switches are varied and will be replaced.
- Cabling infrastructure for most part is Cat 5E.
- Facility access in most cases must be by badged personnel.
- Loading dock and freight elevator access are provided
- Aviation Department personnel can be provided for duration of installation.
- Electricians will be provided for by the Aviation dept.
- The electricians shall provide sufficient power to all switch locations.
- Expected hours for work to be performed (7:45am to 4:30pm, off hours, weekends)
- If needed the Aviation personnel will move, connect, etc. any existing equipment
- The Aviation Dept will provide blue prints, floor plans, number of people, etc.

3.2 Facilities Readiness and Cabling

After proposal award, vendor will be responsible for surveying each CITY building and prepare a report that denotes, but is not limited to, the following:

- Condition and suitability of wiring closets including space, power, security and air circulation.
- Confirmation of number and type of switches, end users, workstations and printers already in place which are candidates for use as part of the campus network. (As available, CITY will provide the vendor with a current workstation inventory. The vendor will confirm all information through the resultant survey.)
- Facilities' design that denotes site preparation work that CITY must prepare for network installation.

Vendor will be responsible for installing any associated hardware including equipment racks for network electronics that exceeds the current plan of thirty-six inches of one 19-inch rack per closet. Additional electrical outlets and/or Heating, Ventilation and Air Conditioning (HVAC) will be the responsibility of CITY staff.

3.3 Site Systems

Vendor will be responsible for design, support, installation, and verification of operability of the following at *each* SAIA building:

- LAN connectivity
- Connectivity to the SAIA backbone

3.4 System Services

Vendor will be responsible for design, furnishing, and installation of the following:

- Network management functions, services, equipment, and software

TAB 4 TECHNICAL SUPPORT AND SERVICES

Specify details on maintenance and service options. Provide detailed pricing in each case for the maintenance level considered most appropriate. Indicate how maintenance pricing is calculated. CITY desires the following maintenance provisions:

4.0 TELEPHONE SUPPORT

- 4.0.1 A 7-day, 24 hour technical support hot line must be available for questions relating to installation, configuration, usage, applications, and troubleshooting of hardware devices and network management software from a single telephone number.
- 4.0.2 It is highly desired that there be no callback delay involved in contacting a support person and the telephone support process must not require that a support person be paged or called to respond to a support issue.
- 4.0.3 The technical support line must be manned by personnel employed by the product's vendor or a technician qualified to troubleshoot the products in question.
- 4.0.4 The technical support line must provide access to product support personnel and manufacturing engineers at an advanced level of escalation if required.
- 4.0.5 The technical support line must provide an escalation path to coordinate the next level of support in accordance with the service contract.

4.1 ADVANCE REPLACEMENTS

- 4.1.1 Products covered by the appropriate level of support requiring repair or replacement must be shipped from the vendor no later than the next business day following the report of a replacement requirement.

- 4.1.2 Products shipped for advance replacement should be sent next day express at no charge to the customer.
- 4.1.3 Products must be shipped directly to the customer site, and may not be considered received at an off-site depot where they will await pick-up.
- 4.1.4 Repair of network equipment determined to be faulty shall be advanced replaced with products.

4.2 FIRMWARE UPGRADES

- 4.2.1 On-board instruction code upgrades must be made available when requested at no charge for any product covered under the service agreement.
- 4.2.2 “Bug” fixes and/or patches will be made available upon request at no charge for any products covered under the service agreement.
- 4.2.3 The telephone support line must be made available to provide assistance in the event difficulties arise during the instruction code, “bug” fix, and/or patches downloading process.
- 4.2.4 The vendor’s technical support personnel may consult with CITY to determine the applicability and impact of firmware.
- 4.2.5 These upgrades and fixes must be available through all of the following gateways: a toll free number, the Internet, bulletin board or World Wide Web (WWW), as well as through physical parcel post.

4.3 PROBLEM RESOLUTION PROCEDURES

- 4.3.1 In the event a network problem cannot be resolved and implemented through the vendor’s technical support line, the vendor must respond by dispatching an employee from their technical field engineering department to be on-site at SANANTONIO INTERNATIONAL AIRPORT within a minimum of four business hours for the provision of on-site service.
- 4.3.2 The vendor’s escalation path must be defined and described for network problems not resolved in two hours. The escalation path must include the vendor’s Research and Engineering resources with specific duties detailed and the timeframe of key resource involvement in the escalation path. It is required that the full extent of the escalation path must include the Director of Engineering direction of the team of engineers assisting the on-site engineer until the failure has been resolved.
- 4.3.3 The network device vendor must provide a problem tracking system. Indicate the escalation procedure to resolve problems that require such escalation.

4.4 OTHER SERVICES

- 4.4.1 Indicate other types of support services available, i.e., Network Design, Network Integration, System Installation, for both pre- and post-sales.

- 4.4.2 Upgrade availability for products covered under maintenance. Indicate all products and upgrades that are included under the maintenance quoted and any costs associated with upgrading.
- 4.4.3 Explain any spare component options that may be available for critical devices. Outline available discounts on critical device spares. This option requires spares to be maintained at current revision levels at no additional charge.
- 4.4.4 As SAIA has many locations, outline the availability of a multiple switch support plan which will provide a per switch cost for maintenance and support services, regardless of module configuration within the switches. Explain how this program would simplify maintenance planning and budgeting.
- 4.4.5 Outline a service support option to have a technical support specialist as a single point of contact for all aspects of City's maintenance program. Include an explanation of how this service would be beneficial to CITY.
- 4.4.6 As it is City's intention to minimize downtime and maximize the performance and functionality of the data network, provide a service support option for an on-site resident engineer. Include a description of the network consultant capabilities (i.e., responsibility for diagnosing faults, management of on-site logistics and spares, etc.). CITY, due to the critical nature of the data network, may exercise the option to have a consummate level of support provided directly from the vendor. Therefore, outline in detail the above plan.

TAB 5. VENDOR QUALIFICATIONS

5.1 VENDOR PROFILE

Include a description of the vendor, services offered, and years in business, management structure and profile, and scope of products and services offered.

5.2 FINANCIAL POSITION

Indicate financial performance for the past three years. Include, as an appendix, an audited Annual Report to Shareholders.

5.3 RESEARCHES AND DEVELOPMENT

Indicate financial commitment to research and development for the past three years. Indicate, where possible, current projects under development.

5.4 INDUSTRY PARTICIPATION

- 5.4.1. Identify products or projects vendor was the leader in bringing to the marketplace.
- 5.4.2. Indicate industry(s) in which vendor participates.
- 5.4.3. Indicate Standards Organizations or Committees of which the vendor is a member of and in which the vendor is an active participant.

5.5 WARRANTY

Describe warranty available. Provide information regarding any variation of warranty by product; provide reference to any included service contract information and pricing.

5.6 REFERENCES

Provide Customer Reference information for at least three customers; these should be customers of a similar industry to SAIA, at whose site the vendor has installed a similar solution (similar in size, scope, or technology). Please provide Contact Name, Company Name, Physical Address, Contact Phone Number, and Contact E-mail Address (if available). Please also give a brief list of vendor's equipment installed at the site(s).

Company Name (1): _____

Contact Name: _____

Physical Address: _____

Phone Number: _____

E-mail Address: _____

Equipment List: _____

Company Name (2): _____

Contact Name: _____

Physical Address: _____

Phone Number: _____

E-mail Address: _____

Equipment List: _____

Company Name (3): _____

Contact Name: _____

Physical Address: _____

Phone Number: _____

E-mail Address: _____

Equipment List: _____

TAB 6. DELIVERY AND INSTALLATION

6.1 PRODUCT AVAILABILITY

Products proposed must be available for purchase at the time of proposals. All orders placed must be deliverable within a maximum of 60 days. If quoting futures, indicate availability dates; these products must ship by the implementation date, or not be part of the current solution.

6.2 SITE REQUIREMENTS

Indicate any special site preparation requirements necessary for the successful operation of your products. Include all electrical, air conditioning, space requirements, rack mounts, and other requirements as appropriate.

6.3 SYSTEM SETUP

Vendor is responsible for the unpacking, setup, and installation of actual equipment. Client will provide network map, node numbering scheme, and appropriate trained personnel to assist in the setup process.

6.4 SYSTEM TEST

Indicate system tests and diagnostics available at time of setup, as well as normal boot procedures. Describe test methodology to be used in this installation.

ADDITIONAL PROVISIONS:

A) Ownership and Licenses

In accordance with Texas law, Respondent acknowledges and agrees that all local government records created or received in the transaction of official business or the creation or maintenance of which were paid for with public funds are declared to be public property and subject to the provisions of Chapter 201 of the Texas Local Government Code and Subchapter J, Chapter 441 of the Texas Government Code. Thus, no such local government records produced by or on the behalf of Respondent pursuant to this Contract shall be the subject of any copyright or proprietary claim by Respondent.

The term "local government record" as used herein shall mean any document, paper, letter, book, map, photograph, sound or video recording, microfilm, magnetic tape, electronic medium, or other

information recording medium, regardless of physical form or characteristic and regardless of whether public access to it is open or restricted under the laws of the state, created or received by local government or any of its officials or employees pursuant to law including an ordinance, or in the transaction of official business.

Respondent acknowledges and agrees that all local government records, as described herein, produced in the course of the work required by any contract awarded pursuant to this RFP, will belong to and be the property of City. Respondent, if awarded this contract, will be required to turn over to City, all such records as required by said contract. Respondent, if awarded this contract, shall not, under any circumstances, release any records created during the course of performance of the contract to any entity without City's written permission, unless required to do so by a Court of competent jurisdiction.

In accordance herewith, Respondent, if selected, agrees to comply with all applicable federal, state and local laws, rules and regulations governing documents and ownership, access and retention thereof.

B) Certifications

Respondent warrants and certifies that Respondent and any other person designated to provide services hereunder has the requisite training, license and/or certification to provide said services, and meets all competence standards promulgated by all other authoritative bodies, as applicable to the services provided herein.

TAB 7. TECHNICAL REQUIREMENTS

Note: If more than one product is being utilized to provide similar functions in each case, address the requirements below as regards each product quoted. CITY will consider any vendor not responding to each requirement for all products quoted to be non-responsive. Please indicate any implementation plans and note costs, configurations, charges, and maintenance in the PRICING section of this RFP.

Optical Access Switch with 10 Gigabit Uplink

Vendor must provide 2 Optical Access Switches with 10 Gigabit Uplink with the following requirements at a minimum:

Must provide support for twelve Gigabit Ethernet ports and a modular 10 Gigabit uplink.

Must provide a 22 Gbps switch capacity.

Must provide throughput of more than 32 million packets per second.

Must be capable of transporting up to 20 Gbps of data across a single fiber optic cable to cost effectively combat fiber depletion.

Must provide a high-availability feature such as Link Aggregation (IEEE 802.3ad), and Rapid Reconfiguration Spanning Tree (IEEE 802.1w).

Must provide standards-based switching support, IEEE 802.1D switching, IEEE 802.1Q VLANs, and IGMP version 1 and version 2.

Must provide industry-leading management for rapid deployment and troubleshooting.

Must provide extensive remote management capabilities with NetSight Element Manager, NetSight Policy Manager.

Must support RFC 2674 VLAN MIB, Telnet and WebView.

Must provide an integrated architecture, which provides management authorization and authentication via RADIUS and 802.1X User Authentication.

Must meet the following environmental specifications:

- Operating Temperature: 5° to +40°C (41° to 104°F)
- Non-operating Temperature: -30° to +73°C (-22° to 164°F)
- Operating Humidity: 5–90% RH, non-condensing

Must meet the following agency and standards specifications:

IEEE Standards Supported: IEEE 802.3, IEEE 802.1D, IEEE 802.1Q, IEEE 802.3ad, IEEE 802.1w, IEEE 802.1X.

RFC/MIBs: RFC 2674 VLAN MIB.

Edge Switch

Similar to or better

Matrix E1 1H582-51 & IG582-09, Cisco Catalyst 3550, Avaya P333, Nortel Passport 1424T

Vendor must provide Matrix High-density workgroup switches with flexible uplinks meeting the following requirements as a minimum:

Must provide 24 fixed 10/100 Ethernet Ports.

Must provide 6 Gigabit Ethernet ports.

Must provide a switch with 3 expansion slots, which supports a variety of 10/100 or Gigabit Ethernet connectivity options.

Must provide redundant AC input power.

Must provide 24 Gbps switching capacity.

Must exceed 16 Mbps throughput.

Must provide Standards-based switching and routing support via, IEEE 802.1D; IEEE 802.1Q VLANs, IP v4 Routing; RIP v1/v2 and OSPF; and IGMP multicast support.

Must provide superior Quality of Service (QoS) via 802.1p support, 4 queues per port, DiffServ support, Hardware-based rate limiting.

Must provide simplified management via extensive remote management capabilities. Management performed via CLI, web browser or any SNMP-based application.

Must support RMON as well as extensive port trunking/mirroring.

Must provide Industry-leading security, which supports management authorization and authentication via IP Access Control Lists, RADIUS Authentication.

Must deliver port-based MAC address locking and support for the 802.1X Authentication standard.

Must provide full-featured Layer 2 switching and robust Layer 3 routing.

Must meet the following environmental specifications:

- Operating Temperature: 5° to +40°C (41°F to 104°F)
- Non-Operating Temperature: -30° to 73°C (-22°F to 164°F)
- Operating Humidity: 5–90% relative humidity, non-condensing
- Power Consumption: AC input power (auto-sensing)
- 85 VAC – 264 VAC
- Heat dissipation: 173 BTU/hr
- ACVA rating: 54 ACVA

Outdoor Solution for Wireless

Vendor must provide a wireless product meeting the following requirements as a minimum:

Must provide Robust LAN Connectivity for up to 3.5 miles at 11Mbps.

Must provide a high performance link of 11 Mbps signaling.

Must be easy and rapid to install.

Must have no special permits or licenses required.

Must have seamless LAN connections.

Must use IEEE 802.11 Compliant Hardware.

Must be standards compliant, seamless integration, cost effective modular upgrade.

Must have access point manager.

Must allow the user or Network Manager to configure and manage access points. Which can be used as a diagnostic tool to easily determine best antenna orientation and to make sure there is a reliable link?

Must provide RMON and SNMP Support.

Must provide statistics, History, Alarms, and Events for Remote Monitoring and SNMP for network management.

Must be capable of a 3.5 mile Range at 11Mbps

Must provide high performance (up to 3.5 miles at 11 Mbps, 5 miles at 5.5Mbps, and 7 miles at 2Mbps and 10 miles at 1Mbps for North American model).

Must support a Multi-Channel Operation allowing separate, non-overlapping wireless links in the same area.

Must provide an easy upgrade capability.

Must provide investment protection via an on line upgrade capability.

Must provide the following environmental specifications:

- Frequency Range: 2.4 GHz
- VSWR: Less than 2:1, 1.5:1 Nominal
- Nominal Impedance: 50 Ohms
- Gain: 14-dBi
- Front-to-Back Ratio: greater than 20 dB
- Half-Power Beam width: (-3dB)
- Vertical (E-plane °): 30.8 Degrees
- Horizontal (H-plane °): 31.4 Degrees
- Polarization: Linear, Vertical or Horizontal

High Rate Wireless

Vendor must provide High Rate Wireless meeting the following requirements as a minimum:

Must provide 11 Mbps data rate for maximum throughput.

Must have vendor interoperability, seamless integration, and investment protection.

Must have interoperable with 2 Mbps 802.11 DS clients.

Must have the access point is capable of supporting up to 250 users.

Must allow users to easily identify RF signal strength coming from the Access Points.

Must have attractive design for wall or ceiling mounting.

Must support remote power and network connectivity via single Cat 5 UTP Cable from the data closet, avoiding the expense of an AC power outlet at the location of each access point

Redundant Power Option.

Must have increased performance with higher density of access points using three non-overlapping channels.

Must support SNMP management, which supports the set-up, management, and configuration of multiple Access Points.

Must have encryption supporting the IEEE 802.11 40 bit Wired Equivalent Privacy (WEP) protocol is included in the standard product (128 bit key versions are also available for the highest security). Be WPA compatible.

Must have Enhanced Access Control mechanism to allow network managers total control over who connects to your network.

Must provide investment protection – easily upgrade the access point via firmware available on a web page.

Must meet the following environmental specifications:

- Operating Temperature 0-50° C
- Operating Humidity 95% max. Humidity (non condensing)

Must meet the following agency and standards specifications:

- Safety US: UL1950, Canada: CSA C22.2 No. 950, Europe: EN60950 and 73/23/EEC, Australia: AS3260
- Electromagnetic Compatibility (EMC) US: FCC Part 15, Canada: CS-03 and ISC RSS210, Europe: EN55022, EN50082-1, 89/336/EEC, and ETS 300-328, Japan: VCCI V-3 and MPT Radio Regulations, Australia: AS3548

Wireless Access Platform

Similar to or better

Enterasys RoamAbout R2, Cisco Aironet 1200 and Avaya AP-3

Vendor must provide Wireless Access meeting the following requirements as a minimum:

Must support Forward Compatible / Upgradeable to Higher Speed WLAN standards.

Must support Layer 3 / 4 Technology.

Must OFFER networking.

Must support Multi-Layer QoS.

Must support a la Carte selection of radios allowing customers to customize their wireless access platform to fit specific needs / long – term strategy.

Must provide investment protection and ease of technology migration – customers will not have to discard existing 802.11b radios already in use.

Must support networks that scale from one to thousands of wireless nodes.

Must provide Uplink designed to scale for multiple high-speed radios.

Must be able to meet Wi-Fi Protected Access (WPA) when ratified.

Must have future support for 802.11G.

Must have SNMP v3 (encrypts management traffic).

Must support 802.11i (Security Standard).

Must support 802.11e (CoE, QoS support for VoIP).

If an 11a, 11g and 11b card is available and IEEE approved these should be considered

Must meet the following environmental specifications:

- Operating Temperature 5C (41F) to 40C (104F)
- Non-operating Temperature -30C (-22F) to 66C (151F)
- Operating Humidity 5 to 85%
- Non-operating Humidity 0 to 95%
- Power Consumption 120

Must meet the following agency and standards specifications:

- Safety EC Directive 73/23/EEC (EN 60950) Europe, CSA C22.2 No. 950, AS/NZS 3200 Australia/New Zealand, IEC 950 (CB Scheme) International Countries, UL 1950 USA, TUV European certification
- Electromagnetic Compatibility (EMC) AS/NZS 3548 Australia/New Zealand, BCIQ (BSMI) Taiwan, CS-03 Canada, EC Directive 89/336/EEC (EN 55022) Europe, FCC 47CFR Part 15, Class B USA, NOM-019-SCR-SCFI Mexico, VCCI-V3 Japan

TAB 8. NETWORK MANAGEMENT AGENT REQUIREMENTS

CITY considers management of networking products to be of critical importance. Short listed vendors may be asked to supply demonstration units for testing by CITY staff. All mandatory items will be rigorously tested to ensure that they meet stated requirements.

Successful bidders will be required to make a contractual commitment to supply and maintain equipment in accordance with the requirements of this RFP and the response of such bidders.

Similar to or better

Enterasys NetSight Element Manager (v. 3.0.0), Cisco IDS Host Agent, Avaya Multi Service Network Management

Vendor must provide Manager Software with the following specifications as a minimum:

Must support standard switch and router families (Enterasys, Avaya, Nortel).

Must provide integration support for HP Openview Network Node Manager Version 6.1.

Must provide support for all edge, router, wireless devices as well as other SNMP-compliant devices.

Must include device management support for all supplied families.

Must provide simple point-and-click operation from any console.

Must provide customizable list views that can be sorted by any criteria.

Must provide OLE and ODBC compliance to embed spreadsheets and share management information with other applications.

Must provide an Integrated Scheduler that automates common network management and maintenance tasks.

Must provide a group element management, which provides simultaneous administration of many devices via drag-and-drop configuration.

Must provide robust alarm, event and trap management.

Must provide full remote support.

Must provide a network discovery routine (i.e. new equipment).

Network Manager

Similar to or better

Avaya MultiService Network Management, Enterasys Netsight Atlas, Nortel Optivity Network Management

Vendor must provide a policy manager meeting the following requirements as a minimum:

Must provide investment protection, which works with an existing security system.

Allows for fine-tuning of edge devices classification capabilities to make them easy to use.

Must be fully compatible with other Open View management software.

Must provide automated capabilities to save time and resources.

Must offer ease of implementation, administration and troubleshooting.

Must provide appropriate services to each user, no matter where they log on.

Must provide secure, reliable connectivity to network users.

Must give appropriate services to the appropriate user.

Must provide the first line of defense against attacks at the closest point to the user.

Must minimize network complexity as it increases functionality.

Must be JAVA-based, highly graphical and an easy-to-use interface.

Must offer a precise view of the network as a system rather than as individual devices.

Must allow for system level VLAN configuration.

TAB 9. VENDOR RESPONSE FORMAT VALUE-ADDED CONSIDERATIONS

It is important that vendors outline features of their proposal, such as value-added product(s) and/or service(s), which would not normally be addressed in a pricing evaluation as they are of a non-monetary nature. If your organization has a lease or purchase option, or a Cost of Purchase Agreement, explain the terms fully. Where a software license is dependent on certain CPU model groups, and/or number of users, provide a table that explains the situation fully.

RESPONDENT QUALIFICATION GENERAL QUESTIONNAIRE

1. Name/Name of Agency/Company: _____

2. Address: _____

3. Telephone/FAX: _____

4. Does your Company anticipate any mergers, transfer of organization ownership, management reorganization, or departure of key personnel within the next twelve (12) months that may affect the organization's ability to carry out its proposal?
Yes_____ No_____
5. Is your Company authorized and/or licensed to do business in Texas?
Yes_____ No_____
6. Where is the Company's corporate headquarters located? _____

7. a. Does the Company have an office located in San Antonio, Texas?

Yes_____ No_____
 - b. If the answer to the previous question is "yes", how long has the Company conducted business from its San Antonio office?

 _____ (years) _____ (months)

c. State the number of full-time employees at the San Antonio office. _____

TAB 10. EVALUATION CRITERIA

10.1 Mandatory Features

Each vendor will be evaluated in terms of the vendor's ability to satisfy the mandatory technical and management requirements. Compliance with the mandatory requirements is the most important factor of the evaluation process. Those vendors meeting the mandatory requirements will be evaluated further.

10.2 Evaluation of Desired Features and Other Items

Vendor proposals are further evaluated in the areas of (not in priority order):

- Functionality compared to competitive equipment
- Maintenance, including guarantees and warranties
- Satisfactory references
- Bidder's technical support capability
- Bidder's financial stability
- Bidder's flexibility and responsiveness
- Pricing (including shipping costs, warranties, etc.)
- Any specifications that have been deemed desirable
- Any specifications that have been deemed optional

10.3 Short Listed Vendors

Short listed vendors may be required to supply technical assistance for any performance evaluations that are done using their product.

Short listed vendors may also be asked to make a presentation on proposed hardware and management system.

TAB 11. PRICING/OPTIONS

Specify all pricing with list prices, and discounts if available for each option proposed. Specify individual costing for all options, special cables, etc. if not included in base prices. Indicate volume discount levels if they apply to your product(s). Specify complete pricing for Network Management if it is not included in the basic pricing.

- 11.1.1. Describe available costing options (i.e., purchase, rental, or lease)
- 11.1.2. Specify pricing details for the following maintenance and service options available. 7/24 next day Replacement. Training on all hardware and software. Any service the vendor deems necessary to be make the system a reliable Entity.
- 11.1.3. Specify pricing details for installation. All required information in order to complete an installation quotation has been provided in this bid document, including number of sites, floors, closets, as well as descriptions of the installation sites (existing equipment, cabling, etc.).

ATTACHMENT A

RESPONDENT QUALIFICATION GENERAL QUESTIONNAIRE

- 1. Name/Name of Agency/Company: _____
- 2. Address: _____

- 4. Telephone/FAX: _____
- 4. Does your Company anticipate any mergers, transfer of organization ownership, management reorganization, or departure of key personnel within the next twelve (12) months that may affect the organization's ability to carry out its proposal?
Yes____ No____

8. Is your Company authorized and/or licensed to do business in Texas?

Yes____ No____

9. Where is the Company's corporate headquarters located? _____

10. a. Does the Company have an office located in San Antonio, Texas?

Yes____ No____

- b. If the answer to the previous question is "yes", how long has the Company conducted business from its San Antonio office?

____ (years) ____ (months)

- c. State the number of full-time employees at the San Antonio office. _____

8. a. If the Company does not have a San Antonio office, does the Company have an office located in Bexar County, Texas?

Yes____ No____

- b. If the answer to the previous question is yes, how long has the Company conducted business from its Bexar County office?

____ (years) ____ (months)

- c. State the number of full-time employees at the Bexar County office. _____

9. Has the Company or any of its principals been debarred or suspended from contracting with any public entity? Yes____ No____

If yes, identify the public entity and the name and current phone number of a representative of the public entity familiar with the debarment or suspension, and state the reason for or circumstances surrounding the debarment or suspension, including but not limited to the period of time for such debarment or suspension. _____

10. Indicate person whom the City may contact concerning your proposal or setting dates for meetings.

Name: _____

Address: _____

Telephone: _____

FAX: _____

Email: _____

11. Surety Information

Have you or the Company ever had a bond or surety canceled or forfeited? Yes () No ().
If yes, state the name of the bonding company, date, amount of bond and reason for such
cancellation or forfeiture. _____

12. Bankruptcy Information

Have you or the Company ever been declared bankrupt or filed for protection from creditors
under state or federal proceedings? Yes () No ()
If yes, state the date, court, jurisdiction, cause number, amount of liabilities and amount of
assets. _____

13. Provide any other names under which your business has operated within the last 10 years.

ATTACHMENT B

**City of San Antonio
Discretionary Contracts Disclosure***

For use of this form, see City of San Antonio Ethics Code, Part D, Sections 1&2

Attach additional sheets if space provided is not sufficient.

State "Not Applicable" for questions that do not apply.

This form is required to be supplemented in the event there is any change in the information under (1), (2), or (3) below before the discretionary contract is the subject of council action, and no later than five (5) business days after any change in the information which information is required to be filed.

For the purpose of assisting the City in the enforcement of provisions contained in the City Charter and the Code of Ethics, an individual or business entity seeking a discretionary contract from the City is required to disclose in connection with a proposal for a discretionary contract:

(1) the identity of any **individual** who would be a party to the discretionary contract:

(2) the identity of any **business entity**¹ that would be a party to the discretionary contract:

And the name of:

(A) any individual or business entity that would be a **subcontractor** on the discretionary contract;

And the name of:

(B) any individual or business entity that is known to be a **partner**, or a **parent** or **subsidiary** business entity, of any individual or business entity who would be a party to the discretionary contract;

¹ A *business entity* means a sole proprietorship, partnership, firm, corporation, holding company, joint-stock company, receivership, trust, unincorporated association, or any other entity recognized by law.

ATTACHMENT B

(3) The identity of any *lobbyist* or *public relations firm* employed for purposes relating to the discretionary contract being sought by any individual or business entity who would be a party to the discretionary contract.

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Political Contributions

Any individual or business entity seeking a discretionary contract from the city must disclose in connection with a proposal for a discretionary contract all political contributions totaling one hundred dollars (\$100) or more within the past twenty-four (24) months made directly or indirectly to any *current* or *former member* of City Council, any *candidate* for City Council, or to any *political action committee* that contributes to City Council elections, by any individual or business entity whose identity must be disclosed under (1), (2) or (3) above. Indirect contributions by an individual include, but are not limited to, contributions made by the individual's spouse, whether statutory or common-law. Indirect contributions by an entity include, but are not limited to, contributions made through the officers, owners, attorneys, or registered lobbyists of the entity.

To Whom Made:	Amount:	Date of Contribution:

Disclosures in Proposals

Any individual or business entity seeking a discretionary contract with the city shall disclose any known facts which, reasonably understood, raise a question² as to whether any city official or employee would violate Section 1 of Part B, Improper Economic Benefit, by participating in official action relating to the discretionary contract.

Signature:	Title:	Date:

² For purposes of this rule, facts are "reasonably understood" to "raise a question" about the appropriateness of official action if a disinterested person would conclude that the facts, if true, require recusal or require careful consideration of whether or not recusal is required.

ATTACHMENT B

	Company:	
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ATTACHMENT C

LITIGATION DISCLOSURE

Failure to fully and truthfully disclose the information required by this Litigation Disclosure form may result in the disqualification of your proposal from consideration or termination of the contract, once awarded.

1. Have you or any member of your Firm or Team to be assigned to this engagement ever been indicted or convicted of a felony or misdemeanor greater than a Class C in the last five (5) years?

Circle One

YES

NO

2. Have you or any member of your Firm or Team been terminated (for cause or otherwise) from any work being performed for the City of San Antonio or any other Federal, State or Local Government, or Private Entity?

Circle One

YES

NO

3. Have you or any member of your Firm or Team been involved in any claim or litigation with the City of San Antonio or any other Federal, State or Local Government, or Private Entity during the last ten (10) years?

Circle One

YES

NO

If you have answered “Yes” to any of the above questions, please indicate the name(s) of the person(s), the nature, and the status and/or outcome of the information, indictment, conviction, termination, claim or litigation, as applicable. Any such information should be provided on a separate page, attached to this form and submitted with your proposal.

ATTACHMENT D

SMALL BUSINESS ECONOMIC DEVELOPMENT ADVOCACY (SBEDA)*For Use with Contracts over \$200,000*1. **Small Business Participation**

Pursuant to Ordinance No. 96754, it is the policy of the City of San Antonio to involve Small, Minority, Women and African-American Owned Business Enterprises (S/M/W/AABE) to the greatest extent feasible in the City's discretionary contracts. The intent and purpose of the policy is to ensure that S/M/W/AABE firms have the opportunity to compete for City contracts without discrimination on the basis of race, color, religion, national origin, age, sex or handicap. To accomplish the objectives of the SBEDA policy, the City has established specific goals for local S/M/W/AABE participation in this contract.

2. **DEFINITIONS** related to the Small Business Economic Development Advocacy Provisions:

- a. **SBEDA Program:** Small Business Economic Development Advocacy Program designed to promote the utilization and participation of Local, Minority, Women, and African-American Owned Business Enterprises in City sponsored contract opportunities.
- b. **Small Business Enterprises (SBE):** a corporation, partnership, sole proprietorship or other legal entity, for the purpose of making a profit, which is independently owned and operated and which meets the U.S. Small Business Administration (SBA) size standard for small business. All firms meeting this threshold will be considered an SBE.
- c. **Local Business Enterprise (LBE):** a corporation, partnership, sole proprietorship, or other legal entity for the purpose of making a profit, which is headquartered within Bexar County for at least one year. For a branch office of a non-headquartered business to qualify as an LBE, the branch office must be located in Bexar County for at least one-year and employ a minimum of ten (10) residents of Bexar County or employ Bexar County residents for at least twenty-five (25%) of the entire company workforce for use at the local branch office.
- d. **Minority Business Enterprise (MBE):** a sole proprietorship, partnership, or corporation owned, operated, and controlled by a minority group member(s) who has at least 51% ownership. The minority group member(s) must have operational and managerial control, interest in capital, expertise and earnings commensurate with the percentage of ownership and be legal residents or citizens of the United States or its territories. To qualify as an MBE, the enterprise shall be headquartered in Bexar County for any length of time, or shall be doing business in a locality or localities from which the City regularly solicits, or receives bids on or proposals for, City contracts within the MBES's category of contracting for at least one year.
- e. **Woman Business Enterprise (WBE):** a sole proprietorship, partnership, or corporation owned, operated and controlled by women who have at least 51% ownership. The woman or women must have operational and managerial control, interest in capital, expertise and earnings commensurate with the percentage of ownership and be legal residents or citizens of the United States or its territories. To qualify as a WBE, the enterprise shall be headquartered in Bexar County for any length of time or shall be doing business in a locality

ATTACHMENT D

or localities from which the City regularly solicits or receives bids on or proposals for, City contracts within the WBE's category of contracting for at least one year.

- f. **African-American Business Enterprise (AABE)**: a sole proprietorship, partnership, or corporation owned, operated and controlled by an African-American group member(s) who has at least 51% ownership. The African American Group member(s) must have operational and managerial control, interest in capital, expertise and earnings commensurate with the percentage of ownership and be legal residents or citizens of the United States or its territories. To qualify as an AABE, the enterprise shall be headquartered in Bexar County for any length of time or shall be doing business in a locality or localities from which the City regularly solicits, or receives bids on or proposals for, City contracts within the AABE's category of contracting for at least on year.

3. **Goals for Small Business Participation**

The goals for the utilization and participation of SBE-MBE-WBE-AABE businesses on this contract are as follows:

MBE	15%
WBE	10%
AABE	3%
SBE	50%

Please note that a small business could be classified in multiple categories and thus their utilization could in theory be counted in each category of goals. For example, **Prime Contractor X** submits a proposal, which specifies that they intend to subcontract with Subcontractor A for 10% of the contract. Subcontractor A is certified by the City as an SBE and MBE (a male-owned Hispanic Business owner can be certified as an SBE and MBE). **Prime Contractor X** also intends to subcontract with Subcontractor B for 13% of the contract. Subcontractor B is certified by the City as SBE, MBE and a WBE (a female-owned Hispanic Business owner can be certified as SBE, MBE and WBE). In addition, **Prime Contractor X** also intends to subcontract 10% of the contract to Subcontractor C—a City certified SBE and AABE (a male-owned African-American business owner can be certified as both a MBE and as an AABE Business). **Prime Contractor X** is also classified as a local SBE. **Prime Contractor X's** compliance with the SBEDA goals under this scenario would be as follows:

	City's SBEDA Goals	Prime Contractor X's Compliance
MBE	15%	33%
WBE	10%	13%
AABE	3%	10%
SBE	50%	100%

ATTACHMENT D

Under this scenario, the contractor would be in full compliance with the SBEDA policy.

Another example regarding compliance with the policy is as follows: **Prime Contractor Y** submits a proposal, which specifies that they intend to partner through a joint-venture agreement with Company D. Company D is certified by the City as both an SBE and MBE (a male-owned Hispanic Business—certified as an SBE and MBE). As part of their joint-venture agreement, Company A will perform on 32.5% of the contract. **Prime Contractor Y** also intends to subcontract 13% of the contract with Subcontractor F. Subcontractor F is a City certified SBE/MBE/WBE and AABE business. **Prime Contractor Y** is also classified as a local SBE.

Prime Contractor Y compliance with the SBEDA goals would be as follows:

	City's SBEDA Goals	Prime Contractor X's Compliance
MBE	15%	45.5%
WBE	10%	13%
AABE	3%	13%
SBE	50%	100%

Under this scenario, the contractor would be in full compliance with the SBEDA policy.

4. **Good Faith Effort Required**

Proposals shall include a Good Faith Effort Plan (GFEP—ATTACHED). The GFEP shall include specific documentation to utilize local, small, MBE-WBE-AABE businesses in a percentage, which equals or exceeds the above goals. **Any proposal that does not include the GFEP and does not receive approval of the GFEP by the Economic Development Department shall be declared non-responsive, and excluded from consideration.**

5. **MBE-WBE-AABE Certification Required**

Only companies certified as MBE, WBE, or AABE through the South Central Texas Regional Certification Agency (SCTRCA), or as approved by the City of San Antonio Director of Economic Development, can be applied towards the contracting goals. Proof of certification must be submitted.

6. **SBEDA Information**

Interested contractors/proposers are encouraged to contact the Small Business Outreach Office for information regarding the City's SBEDA Policy. Please call (210) 207-3915 or FAX: (210) 207-8151.

ATTACHMENT E

Good Faith Effort Plan

2. If MBE-WBE-AABE-SBE contracting goals were not achieved in a percentage that equals or exceeds the City's goals, please give explanation.

3. List all MBE-WBE-AABE-SBE Listings or Directories utilized to solicit participation.

4. List all contractor associations and other associations solicited for MBE-WBE-AABE-SBE referrals.

5. Discuss all efforts aimed at utilizing MBE-WBE-AABE-SBEs.

6. Indicate advertisement mediums used for soliciting bids from MBE-WBE-AABE-SBE s.

ATTACHMENT E

7. List all MBE-WBE-AABE-SBE bids received but rejected. (Use additional sheets as needed.)

COMPANY NAME	MBE-WBE-AABE-SBE CERTIFICATION NUMBER	HUE (Y/N)	REASON FOR REJECTION

8. Please attach a copy of your company's MBE-WBE-AABE-SBE policy.
9. Name and phone number of person appointed to coordinate and administer the Good Faith Efforts of your company on this project.
- _____
- _____
10. This Good Faith Effort Plan is subject to the Economic Development Department's approval.

SIGNATURE OF AUTHORIZED OFFICIAL

TITLE OF OFFICIAL

DATE

PHONE

ATTACHMENT E

FOR CITY USE

Plan Reviewed By: _____

Recommendation: Approval _____ Denial _____

Action Taken: Approved _____ Denied _____

DIRECTOR OF ECONOMIC DEVELOPMENT

ATTACHMENT F

PRICING SCHEDULE

State any and all fees you would charge to provide all services listed in this RFP if awarded a contract pursuant to this RFP.

Specify all pricing with list prices, and discounts if available for each option proposed. Specify individual costing for all options, special cables, etc. if not included in base prices. Indicate volume discount levels if they apply to your product(s). Specify complete pricing for Network Management if it is not included in the basic pricing.

Describe available costing options (i.e., purchase, rental, or lease)

Specify pricing details for the following maintenance and service options available. 7/24 next day Replacement. Training on all hardware and software.

Any service the vendor deems necessary to be make the system a reliable entity.

Specify pricing details for installation. All required information in order to complete an installation quotation has been provided in this proposal document, including number of sites, floors, closets, as well as descriptions of the installation sites (existing equipment, cabling, etc.).

Hardware Software Installation Services Total

Wireless

Core

Edge

Management

IDS

Training

Proposal Total: - \$

This a sample pricing set as a guide for total costing

See Appendix C

ATTACHMENT G

INSURANCE REQUIREMENTS

Prior to the commencement of any work under an Agreement awarded pursuant to this RFP, the selected Respondent shall furnish an original completed Certificate(s) of Insurance to the Purchasing and General Services Department, Attn: Don W. Smith, which shall be clearly labeled RFP 03-083 High Technology Request for Competitive Sealed Proposals for Wireless and Communication System Infrastructure as in the Description of Operations block of the Certificate. The original Certificate(s) shall be completed by an agent authorized to bind the named underwriter(s) and their company to the coverage, limits and termination provisions shown thereon, containing all required information referenced or indicated thereon. The original Certificate(s) or form must have the agent's original signature, including the signer's company affiliation, title and phone number, and be mailed directly from the agent to the City. The City shall have no duty to pay or perform under said Agreement until such Certificate shall have been delivered to the Purchasing and General Services Department, Attn: Don W. Smith, and no officer or employee, other than the City's Risk Manager, shall have authority to waive this requirement.

The City reserves the right to review these insurance requirements during the effective period of the Agreement and any extension or renewal thereof and to modify insurance coverage and their limits when deemed necessary and prudent by City's Risk Manager, based upon changes in statutory law, court decisions or circumstances surrounding the Agreement, but in no instance will City allow modification whereupon City may incur increased risk.

Respondent's financial integrity is of interest to the City, and, therefore, subject to Respondent's right to maintain reasonable deductibles in such amounts as are approved by the City, Respondent shall obtain and maintain in full force and effect, for the duration of the Agreement, and any extension thereof, at Respondent's sole expense, insurance coverage written on an occurrence basis, by companies authorized and admitted to do business in the State of Texas and rated A- or better by A.M. Best Company and/or otherwise acceptable to the City.

For Bodily Injury and Property Damage

a. General Aggregate	\$2,000,000
b. Premises operations	\$1,000,000
c. Independent contractors	\$1,000,000
d. Products/completed operations	\$1,000,000
e. Personal Injury	\$1,000,000
f. Contractual liability	\$1,000,000
g. Explosion, collapse, underground	\$1,000,000
h. Broad form property damage, to Include fire legal liability	\$50,000
i. Liquor Liability	\$1,000,000

Business Automobile Liability

a. Scheduled Autos	<u>Combined Single Limit (CSL) for Bodily Injury and Property Damage</u> \$1,000,000 per occurrence or its equivalent.
b. Owned/leased vehicles	
c. Non-owned vehicles	
d. Hired vehicles	

Workers' Compensation	Statutory
Employers' Liability	\$1,000,000/\$1,000,000/\$1,000,000
Professional Liability (Claims made form)	\$5,000,000

ATTACHMENT G

The City shall be entitled, upon request and without expense, to receive copies of the policies and all endorsements thereto as they apply to the limits required by the City, and may require the deletion, revision or modification of particular policy terms, conditions, limitations or exclusions, except where policy provisions are established by law or regulation binding upon either of the parties hereto or the underwriter of any such policies. Respondent shall be required to comply with any such requests and shall submit a copy of the replacement Certificate of Insurance to City at an address provided by City within ten (10) days of the requested change. Respondent shall pay any costs incurred resulting from said changes.

Respondent agrees that, with respect to the above-required insurance, all insurance contracts and Certificate(s) of Insurance will contain the following required provisions:

Name the City and its officials, employees, volunteers and elected representatives as additional insured as respects operations and activities of, or on behalf of, the named insured performed under contract with the City, with the exception of the workers' compensation and professional liability policies;

Provide for an endorsement that the "other insurance" clause shall not apply to the City of San Antonio where the City is an additional insured shown on the policy;

Workers' compensation and employers' liability policy will provide a waiver of subrogation in favor of the City.

When there is a cancellation, non-renewal or material change in coverage, which is not made pursuant to a request by City, Respondent shall notify the City of such and shall give such notices not less than thirty (30) days prior to the change, if Respondent knows of said change in advance, or ten (10) days notice after the change, if the Respondent did not know of the change in advance. Such notice must be accompanied by a replacement Certificate of Insurance. All notices shall be given to the City at the following addresses:

City of San Antonio
Risk Management
Department
RFP for Wireless IT Network
P. O. Box 839966
San Antonio, Texas 78283-3966

City of San Antonio
Purchasing and General Services
RFP for Wireless IT Network
P.O. Box 839966
San Antonio, Texas 78283-3966

If Respondent fails to maintain the aforementioned insurance, or fails to secure and maintain the aforementioned endorsements, the City may obtain such insurance, and deduct and retain the amount of the premiums for such insurance from any sums due under the Agreement; however, procuring of said insurance by the City is an alternative to other remedies the City may have and is not the exclusive remedy for failure of Respondent to maintain said insurance or secure such endorsement. In addition to any other remedies the City may have upon Respondent's failure to provide and maintain any insurance or policy endorsements to the extent and within the time herein required, the City shall have the right to order Respondent to stop work under the Agreement, and/or withhold any payment(s) which become due to Respondent there under until Respondent demonstrates compliance with the requirements hereof.

ATTACHMENT G

Nothing herein contained shall be construed as limiting in any way the extent to which Respondent may be held responsible for payments of damages to persons or property resulting from Respondent's or its subcontractors' performance of the work covered under the Agreement. It is agreed that Respondent's insurance shall be deemed primary with respect to any insurance or self-insurance carried by the City for liability arising out of operations under this contract.

ATTACHMENT H

INDEMNIFICATION REQUIREMENTS

CONTRACTOR covenants and agrees to FULLY INDEMNIFY and HOLD HARMLESS, the CITY and the elected officials, employees, officers, directors, volunteers and representatives of the CITY, individually or collectively, from and against any and all costs, claims, liens, damages, losses, expenses, fees, fines, penalties, proceedings, actions, demands, causes of action, liability and suits of any kind and nature, including but not limited to, personal or bodily injury, death and property damage, made upon the CITY directly or indirectly arising out of, resulting from or related to CONTRACTOR's activities under this CONTRACT, including any acts or omissions of CONTRACTOR, any agent, officer, director, representative, employee, consultant or subcontractor of CONTRACTOR, and their respective officers, agents, employees, directors and representatives while in the exercise of performance of the rights or duties under this CONTRACT, all without however, waiving any governmental immunity available to the CITY under Texas Law and without waiving any defenses of the parties under Texas Law. IT IS FURTHER COVENANTED AND AGREED THAT SUCH INDEMNITY SHALL APPLY EVEN WHERE SUCH COSTS, CLAIMS, LIENS, DAMAGES, LOSSES, EXPENSES, FEES, FINES, PENALTIES, ACTIONS, DEMANDS, CAUSES OF ACTION, LIABILITY AND/OR SUITS ARISE IN ANY PART FROM THE NEGLIGENCE OF CITY, THE ELECTED OFFICIALS, EMPLOYEES, OFFICERS, DIRECTORS AND REPRESENTATIVES OF CITY, UNDER THIS CONTRACT. The provisions of this INDEMNITY are solely for the benefit of the parties hereto and not intended to create or grant any rights, contractual or otherwise, to any other person or entity. CONTRACTOR shall advise the CITY in writing within 24 hours of any claim or demand against the CITY or CONTRACTOR known to CONTRACTOR related to or arising out of CONTRACTOR's activities under this CONTRACT and shall see to the investigation and defense of such claim or demand at CONTRACTOR's cost. The CITY shall have the right, at its option and at its own expense, to participate in such defense without relieving CONTRACTOR of any of its obligations under this paragraph.

It is the EXPRESS INTENT of the parties to this CONTRACT, that the INDEMNITY provided for in this section, is an INDEMNITY extended by CONTRACTOR to INDEMNIFY, PROTECT and HOLD HARMLESS, the CITY from the consequences of the CITY'S OWN NEGLIGENCE, provided however, that the INDEMNITY provided for in this section SHALL APPLY only when the NEGLIGENT ACT of the City is a CONTRIBUTORY CAUSE of the resultant injury, death, or damage, and shall have no application when the negligent act of the City is the sole cause of the resultant injury, death, or damage. CONTRACTOR further AGREES TO DEFEND, AT ITS OWN EXPENSE and ON BEHALF OF THE CITY AND IN THE NAME OF THE CITY, any claim or litigation brought against the CITY and its elected officials, employees, officers, directors, volunteers and representatives, in connection with any such injury, death, or damage for which this INDEMNITY shall apply, as set forth above.

ATTACHMENT I
PROPOSAL CHECKLIST

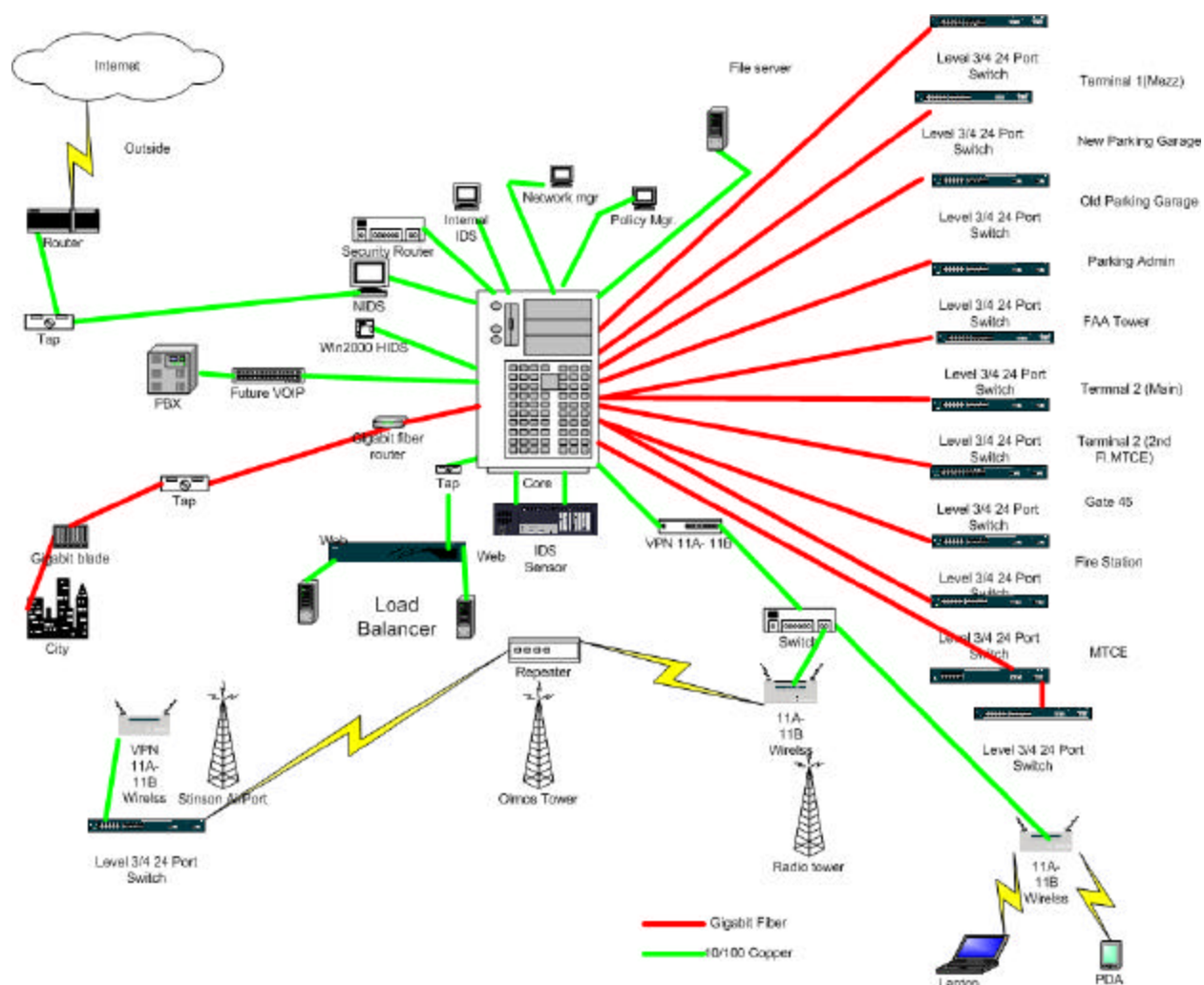
This checklist is to help the Respondent ensure that all required documents have been included in its proposal.

Document	Check or Initial to Indicate Document is Attached to Proposal
Executive Summary	
Respondent Qualification General Questionnaire (Attachment A in RFP)	
*Discretionary Contracts Disclosure (Attachment B in RFP)	
Litigation Disclosure (Attachment C in RFP)	
Small Business Economic Development Policy (Attachment D in RFP) *Good Faith Effort Plan (Attachment E in RFP)	
Pricing Schedule (Attachment F in RFP)	
Indemnification Requirements (Attachment H in RFP)	
Insurance Requirements (Attachment G in RFP)	
References and Qualifications (Proposal Requirements Section of RFP) résumés of key personnel 3 references	
*Annual Financial Statement (<i>Must have signature</i>)	
Proposal Checklist (Attachment I in RFP)	
*Letter of Transmittal	
SIX (6) Copies of Proposal	

***Documents marked with an asterisk on this checklist require a signature. Be sure they are signed prior to submittal of proposal.**

TAB 12. APPENDIXES**APPENDIX A**

The following drawing is a conceptual overall design of the San Antonio International Airport's information technological infrastructure.

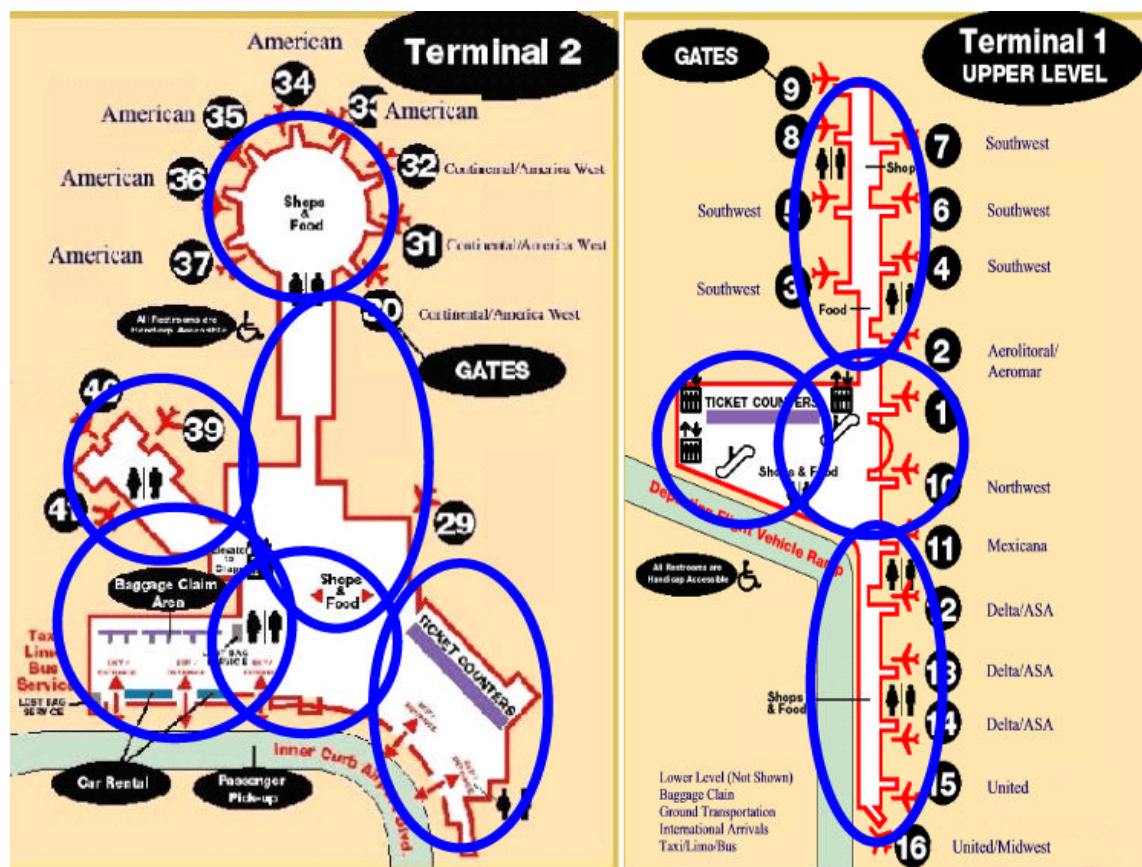


APPENDIX B

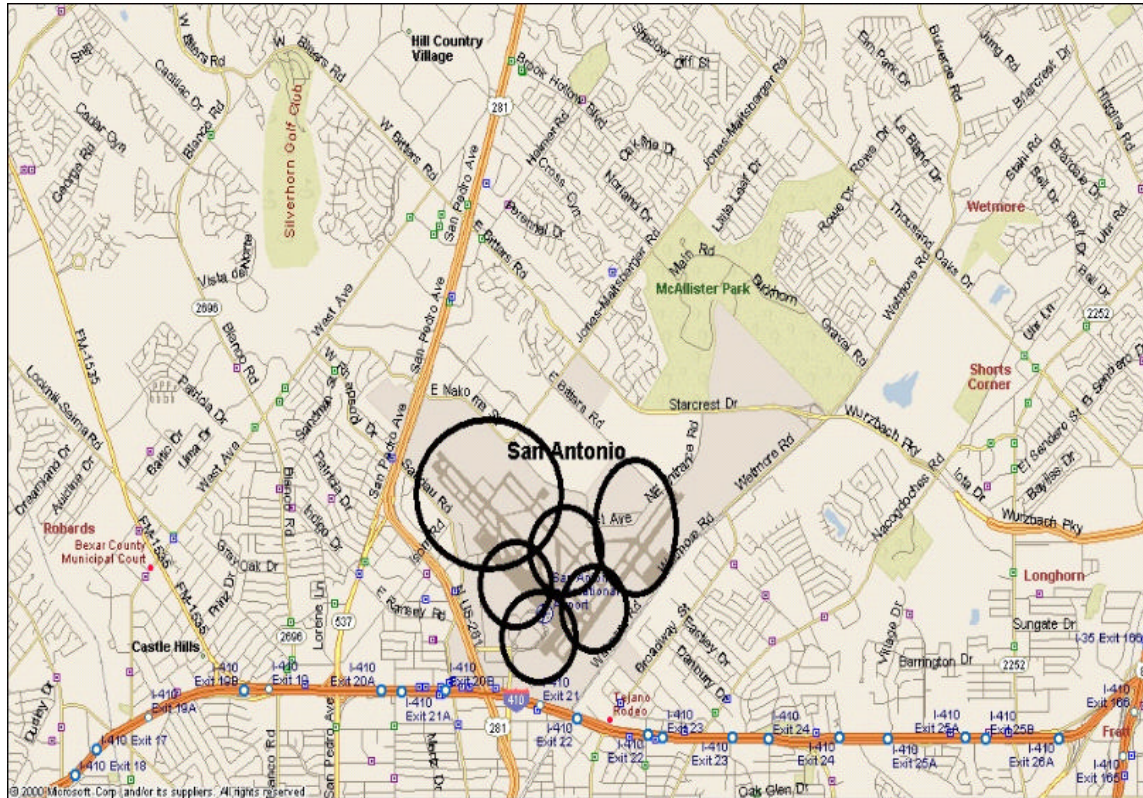
The following pages are a general description of the cell coverage and features of the San Antonio International Airport's requirements.

Indoor Wireless:

The purpose of the wireless indoor network is to provide wireless broadband and internet access. This is the proposed "Cell" layout. Each cell is depicted in circles to represent coverage areas.



To get proper coverage in the indoor airport areas, we will need 9 amplified wireless (as shown above) workgroup or roaming cells for full coverage. Each cell will have a wired (or wireless) Ethernet backbone to the internet.

Outdoor Wireless:

The configuration is the same for the outdoor solution. Since outdoor coverage is in miles, we are using the following outdoor map to depict coverage cells:

APPENDIX C

WIRELESS INFRASTRUCTURE SURVEY FOR San Antonio International Airport

1. This wireless survey was done with hardware as a model for wireless coverage.
2. The vendor should use this survey as an added guide and the vendor is not obligated to use the hardware used in this survey.
3. All cost for a new survey will be at the expense of the vendor.

TABLE OF CONTENTS

1. INTRODUCTION	Page. 02
2. INDOOR WIRELESS	Page. 03
3. OUTDOOR WIRELESS	Page. 37
4. WIRELESS BRIDGE	Page. 46
5. HAREWARE LIST	Page. 58
6. CONTACT INFORMATION	Page. 59

INTRODUCTION

1.0 Site Survey Objective:

- Muzicom Technologies was contracted to perform a wireless pre site survey infrastructure assessment, which started on the 5th day of November 2002 and ended on the 5th day of December 2002 for San Antonio international Airport.
- Included with the wireless system design is the basic wireless network design for indoor wireless, outdoor wireless and a wireless bridge from San Antonio International Airport to Stinson municipal Airports.

2.0 Site Physical Description:

- Medium sized Airport made primarily of limestone and metal outside, & sheet rock, steel, and limestone walls inside.

NOTE:

Please note that the result of the site survey (i.e. RF propagation), as outlined is based on the site layout and configuration at time of survey. Any physical change or addition of walls, equipment, or product storage, could affect specific cell coverage. Should changes be made to the facility and coverage problems appear an additional Site Survey or Site analysis may be needed for correction at the customer's expense

INDOOR WIRELESS SURVEY RESULTS AND LOCATIONS

TERMINAL #1 ACCESS POINT #1

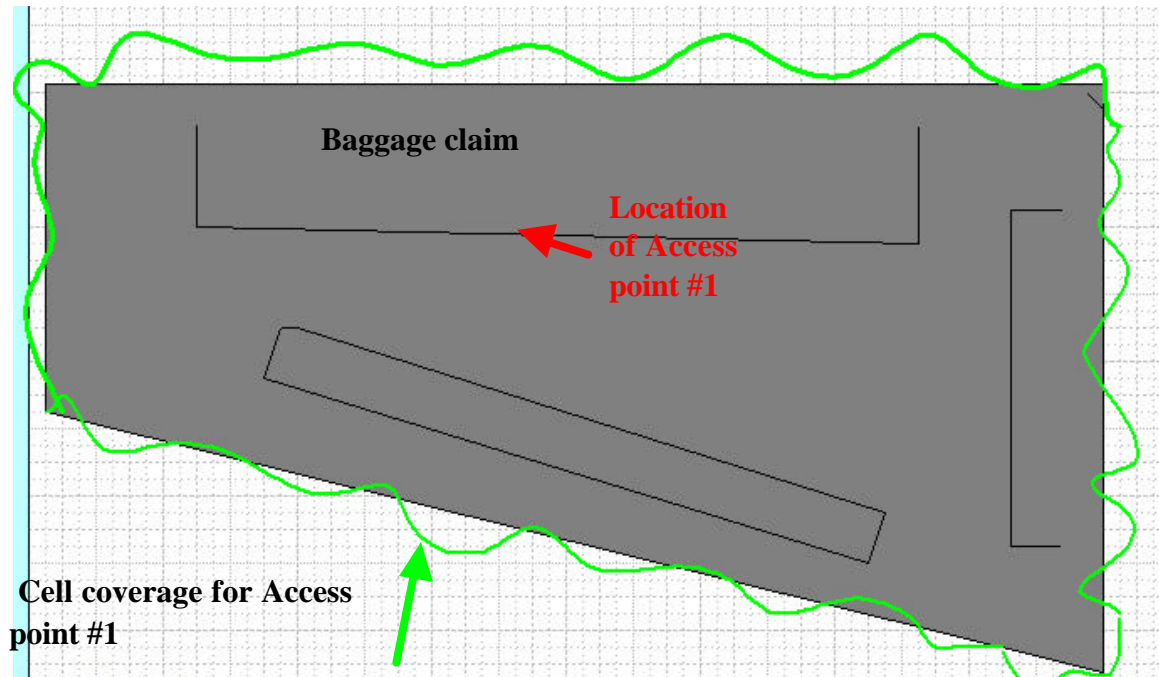


LOCATION OF ACCESS POINT #1

Access point #1 Location: mount the access point in the ceiling above the #2 conveyor on the lower level Baggage claim of the terminal #1. Utilize power over Ethernet to gain power for the radio. Run a power line for the ½ watt amp.

Antenna location: mount the 8dbi omni antenna in the ceiling pointing down. Connect the antenna with the 24 inch LMR 195 jumpers.

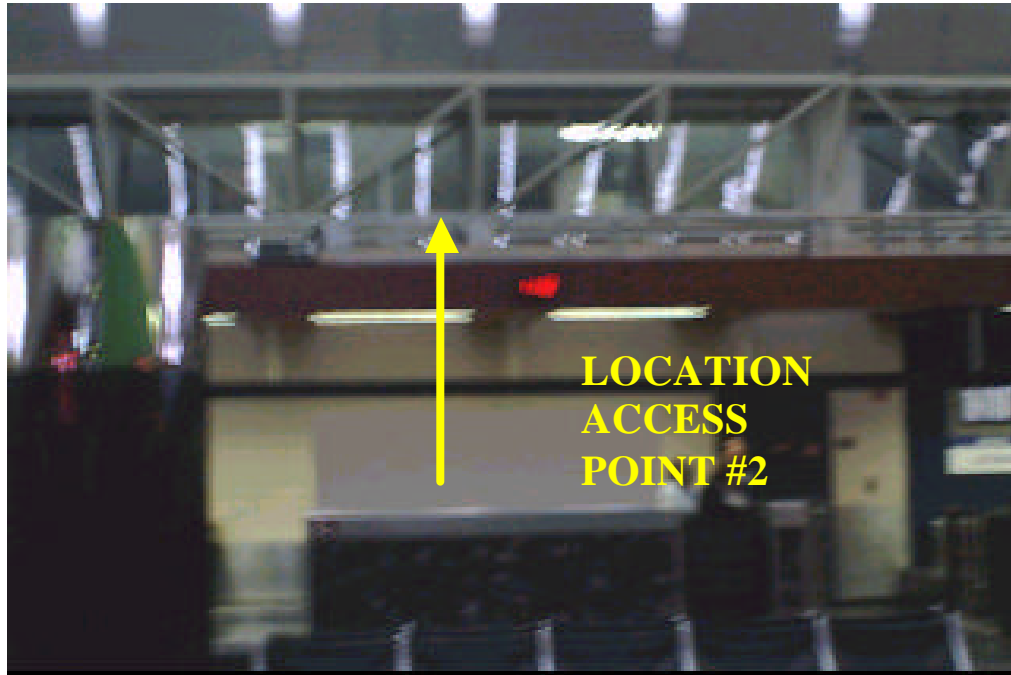
ACCESS POINT #1 CELL COVERAGE



ACCESS POINT #1 CONFIGURATION

Radio Model	ENTERASYS R2
Antenna Type	OMNI
Antenna Gain (dBi)	8 dBi
TX Line Type	LMR 195
TX Line Length (ft)	2 ft
TX Line Unit loss (dB /100 ft)	19.0
TX Line loss (dB)	1.8
Connector loss (dB)	2.0
Frequency (MHz)	2412 MHz
Channel	1
Polarization	Vertical
Fade Margin (dB)	10 dB
TX power (mW)	30 mW
TX power (dB)	14.5
EIRP	35.5
RX Threshold Level (dBm)	-83

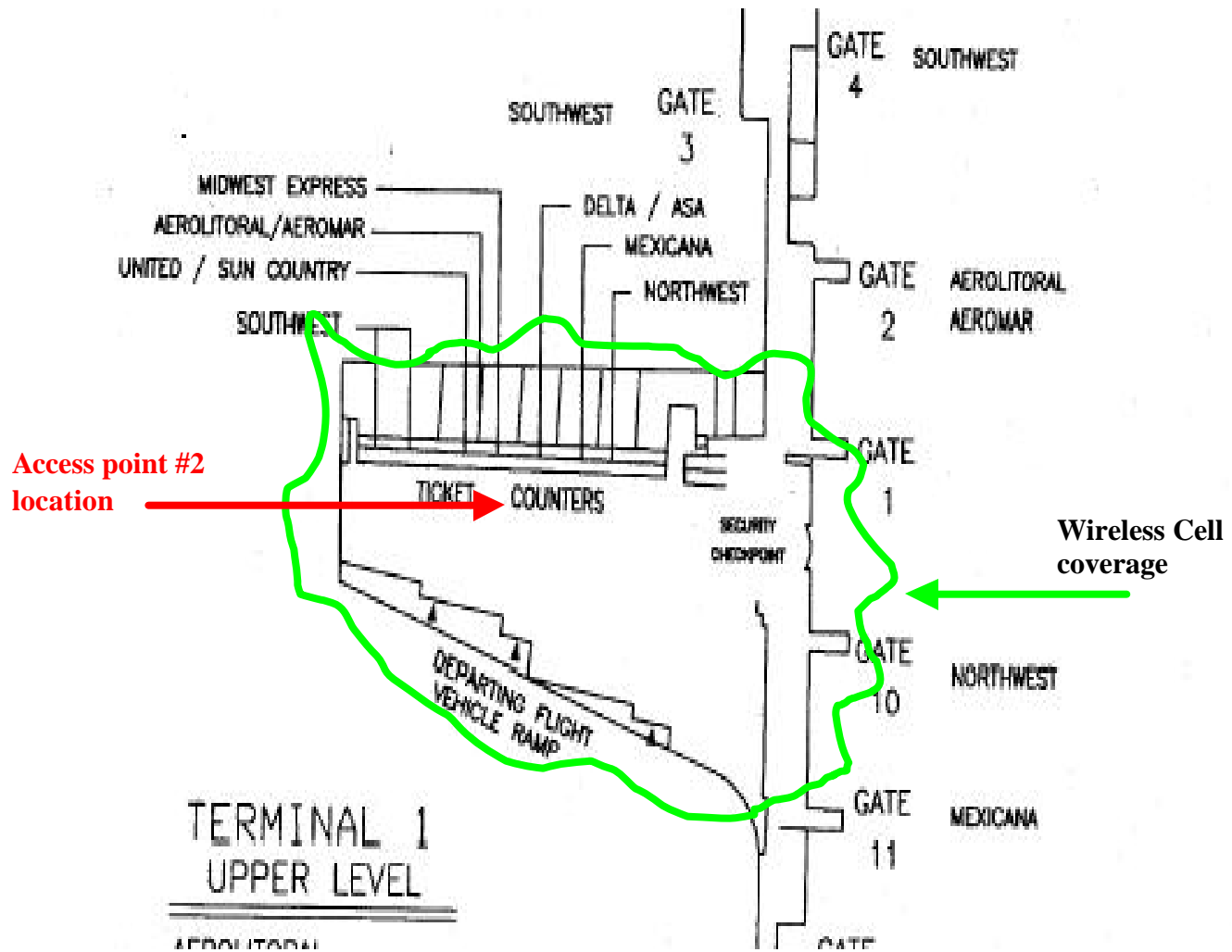
ACCESS POINT #2



Access point #2 Location: mount the access point on the mezzanine above the Delta Airlines ticketing area next to the Airport offices. Utilize power over Ethernet to gain power for the radio. Run a power line for the ½ watt amp.

Antenna location: mount the 8dbi omni antenna in the wall pointing up. Connect the antenna to the amplifier with the 24 inch LMR 195 jumpers.

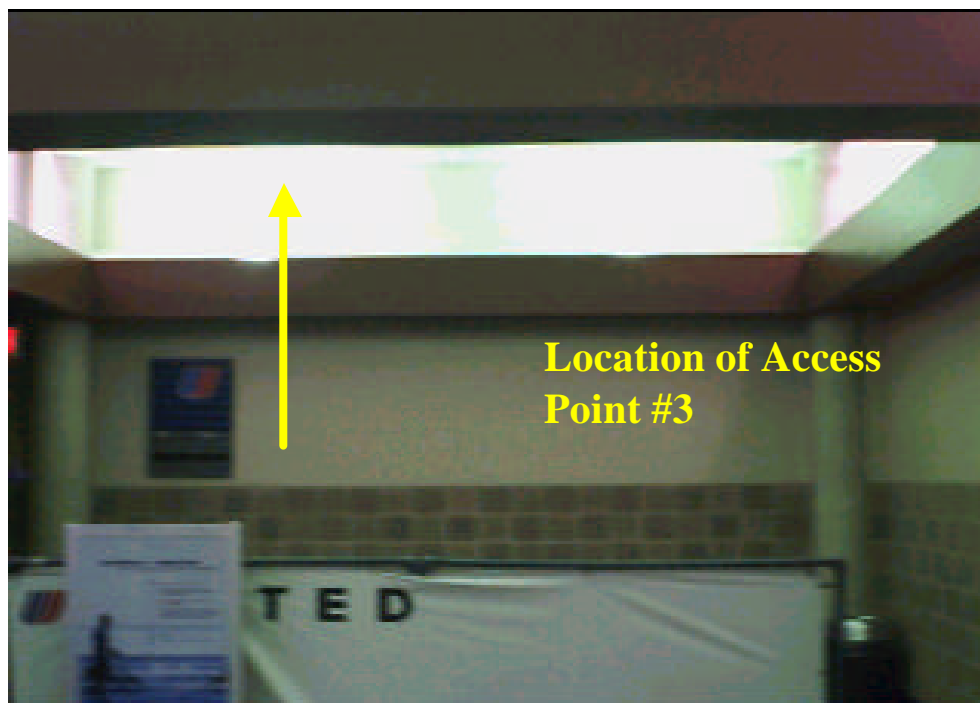
ACCESS POINT #2 CELL COVERAGE



ACCESS POINT #2 CONFIGURATION

Radio Model	ENTERASYS R2
Antenna type	OMNI
Antenna Gain (dBi)	8 dBi
TX Line Type	LMR 195
TX Line Length (ft)	2 ft
TX Line Unit loss (dB /100 ft)	19.0
TX Line loss (dB)	1.8
Connector loss (dB)	2.0
Frequency (MHz)	2437 MHz
Channel	6
Polarization	Vertical
Fade Margin (dB)	10 dB
TX power (mW)	30 mW
TX power (dB)	14.5
EIRP	35.5
RX Threshold Level (dBm)	-83

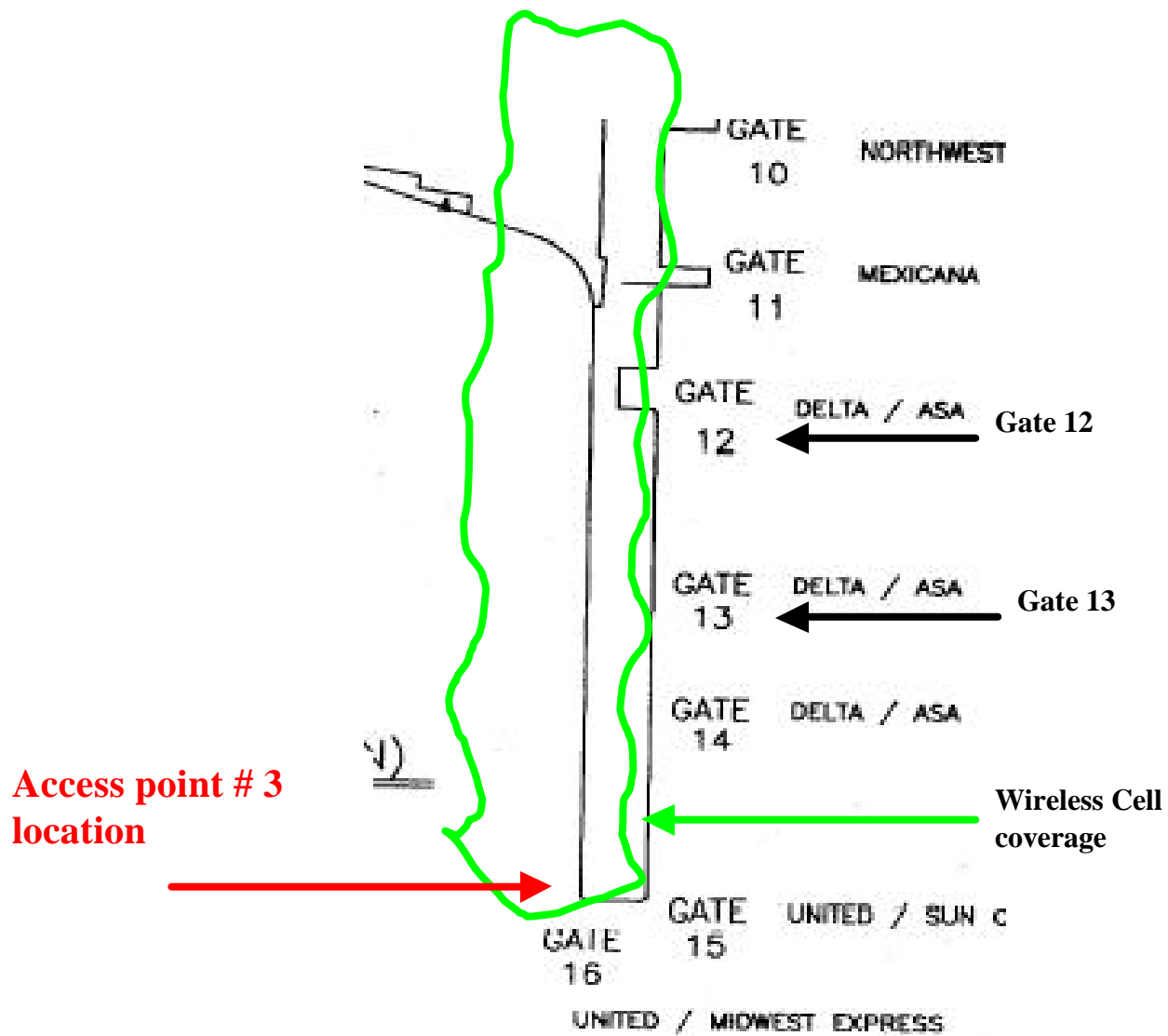
ACCESS POINT #3



Access point #3 Location: mount the access point on the wall above the United air lines Gate 16. Utilize power over Ethernet to gain power for the radio. Run a power line for the ½ watt amp.

Antenna location: mount the 13.5 YAGI antenna on the wall pointing north toward the security check point Connect the antenna to the amplifier using a 24 inch LMR 195 jumper.

ACCESS POINT #3 CELL COVERAGE



ACCESS POINT #3 CONFIGURATION

Radio Model	ENTERASYS R2
Antenna Type	YAGI directional
Antenna Gain (dBi)	13.5 dBi
TX Line Type	LMR 195
TX Line Length (ft)	2 ft
TX Line Unit loss (dB /100 ft)	19.0
TX Line loss (dB)	1.8
Connector loss (dB)	2.0
Frequency (MHz)	2462 MHz
Channel	11
Polarization	Vertical
Fade Margin (dB)	10 dB
TX power (mW)	30 mW
TX power (dB)	14.5
EIRP	35.5
RX Threshold Level (dBm)	-83

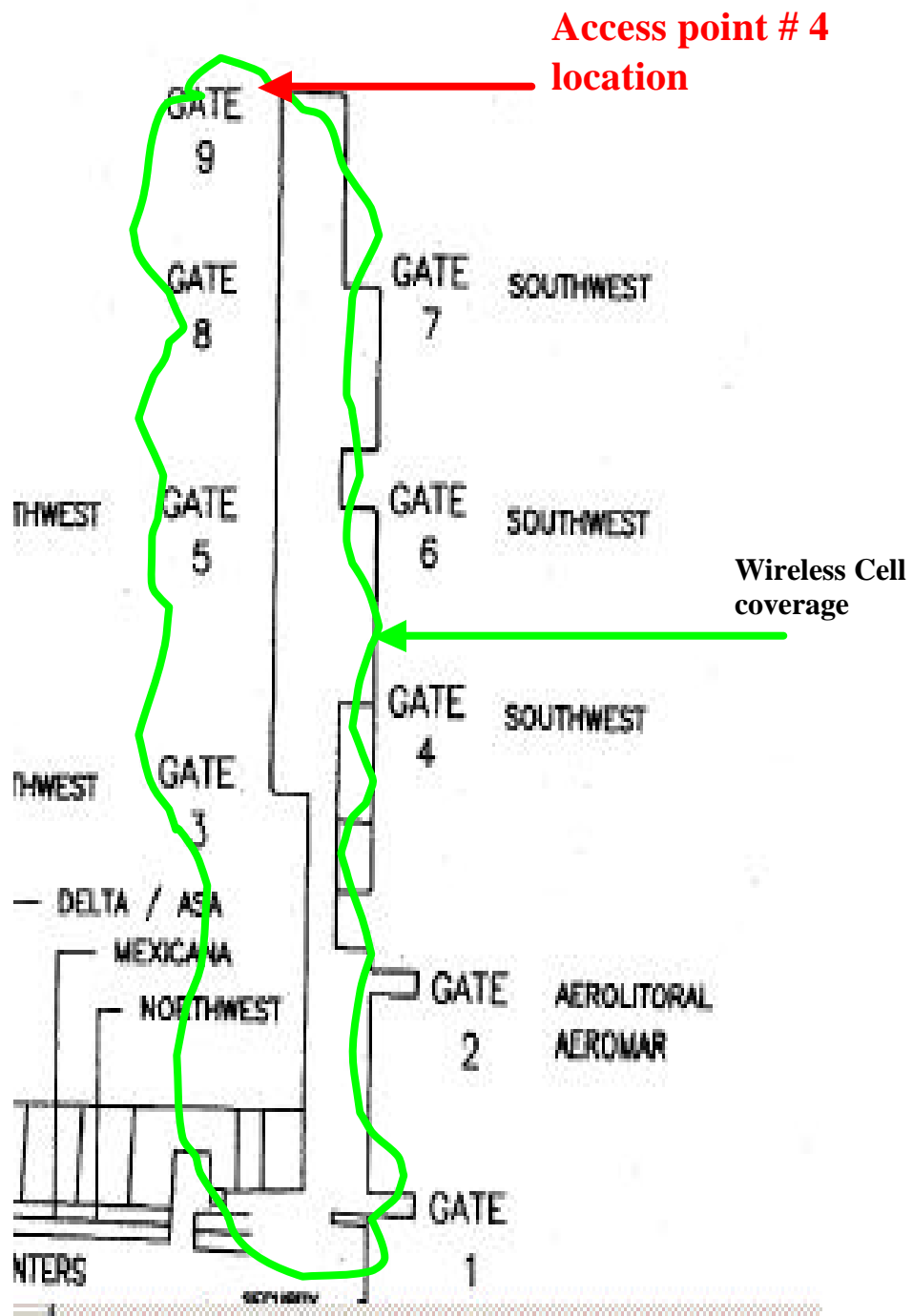
ACCESS POINT #4



Access point #4 (TEMPORARY) due to the construction the access point will need to be installed on this wall until the new area is complete. . Utilize power over Ethernet to gain power for the radio. Run a power line for the ½ watt amp.

Antenna location: mount the 13.5 YAGI antenna on the wall pointing south toward the security check point Connect the antenna to the amplifier with the 24 inch LMR 195 jumpers.

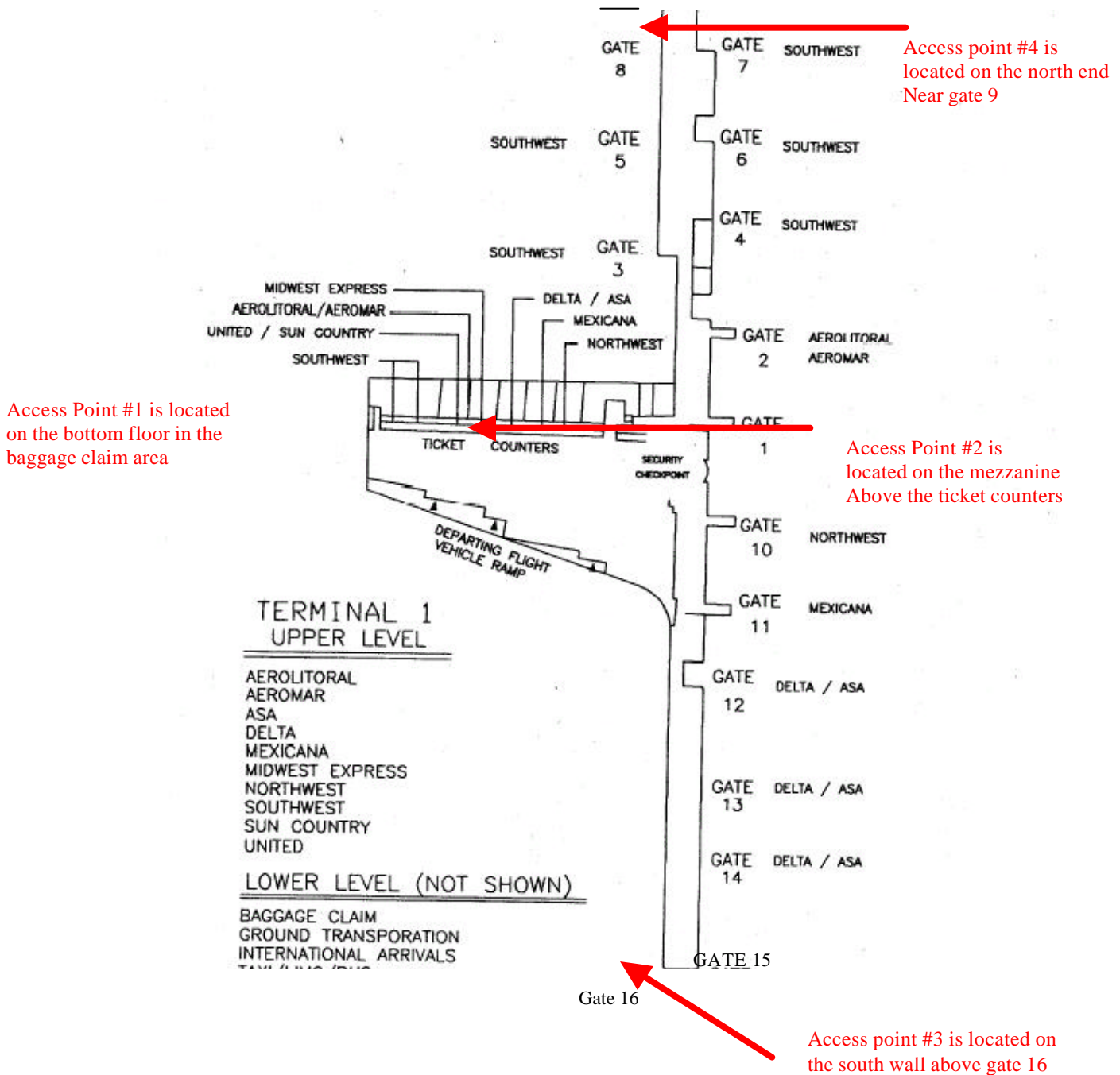
ACCESS POINT #4 CELL COVERAGE



ACCESS POINT #4 CONFIGURATION

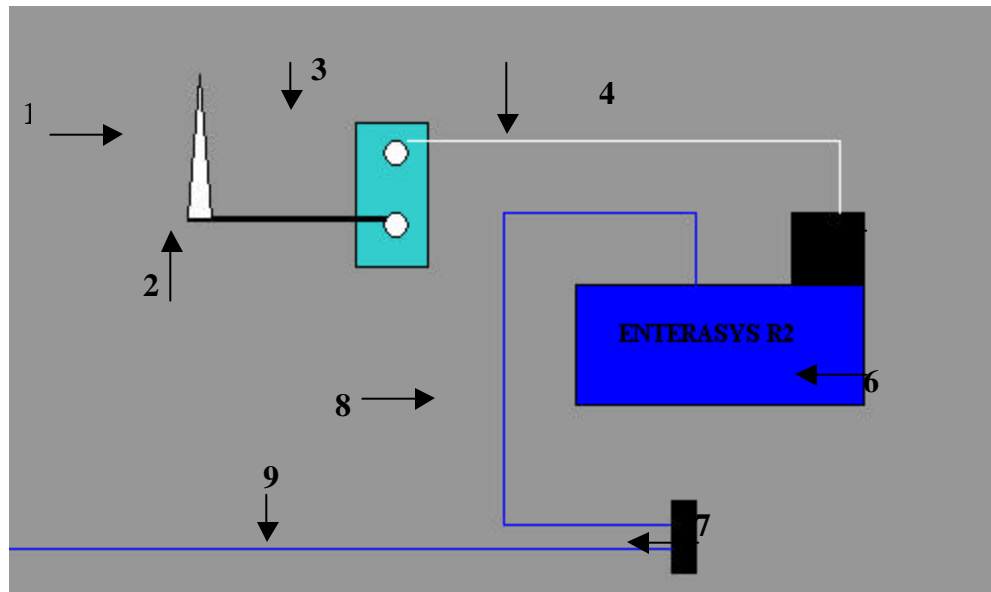
Radio Model	ENTERASYS R2
Antenna Type	YAGI directional
Antenna Gain (dBi)	13.5 dBi
TX Line Type	LMR 195
TX Line Length (ft)	2 ft
TX Line Unit loss (dB /100 ft)	19.0
TX Line loss (dB)	1.8
Connector loss (dB)	2.0
Frequency (MHz)	2412 MHz
Channel	1
Polarization	Vertical
Fade Margin (dB)	10 dB
TX power (mW)	30 mW
TX power (dB)	14.5
EIRP	35.5
RX Threshold Level (dBm)	-83

TERMINAL #1 CELL LOCATIONS



TERMINAL #1

RF NETWORK DIAGRAM FOR CELL LOCATIONS



1. Antenna
2. LMR jumper
3. Amplifier
4. Lucent pigtail
5. 128 bit PCMIA card
6. ENTERASYS R2 Access point
7. Power over Ethernet
8. CAT5 cable to Access point
9. CAT5 cable to network.

TERMINAL #2

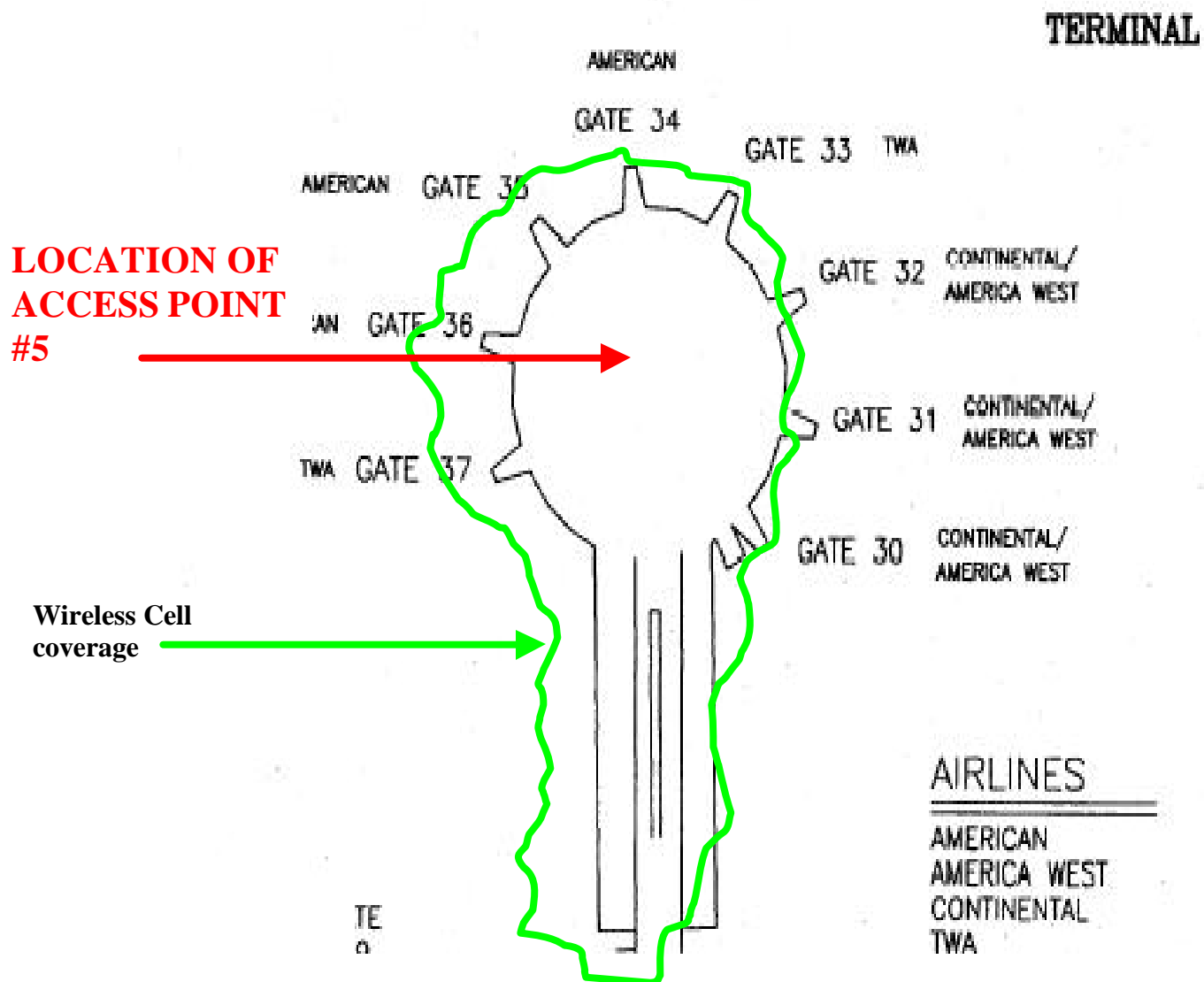
ACCESS POINT #5



Access point # 5 mount the Access point in the ceiling above the food stands in the American Airlines gate area. . Utilize power over Ethernet to gain power for the radio. Run a power line for the ½ watt amp.

Antenna location: mount the 8dbi omni antenna in the ceiling pointing down. Connect the antenna to the amplifier with the 24-inch LMR 400 jumper.

ACCESS POINT #5 CELL COVERAGE



ACCESS POINT #5 CONFIGURATION

Radio Model	ENTERASYS R2
Antenna type	OMNI
Antenna Gain (dBi)	8 dBi
TX Line Type	LMR 400
TX Line Length (ft)	2 ft
TX Line Unit loss (dB /100 ft)	6.7
TX Line loss (dB)	1.8
Connector loss (dB)	2.0
Frequency (MHz)	2462 MHz
Channel	11
Polarization	Vertical
Fade Margin (dB)	10 dB
TX power (mW)	30 mW
TX power (dB)	14.5
EIRP	35.5
RX Threshold Level (dBm)	-83

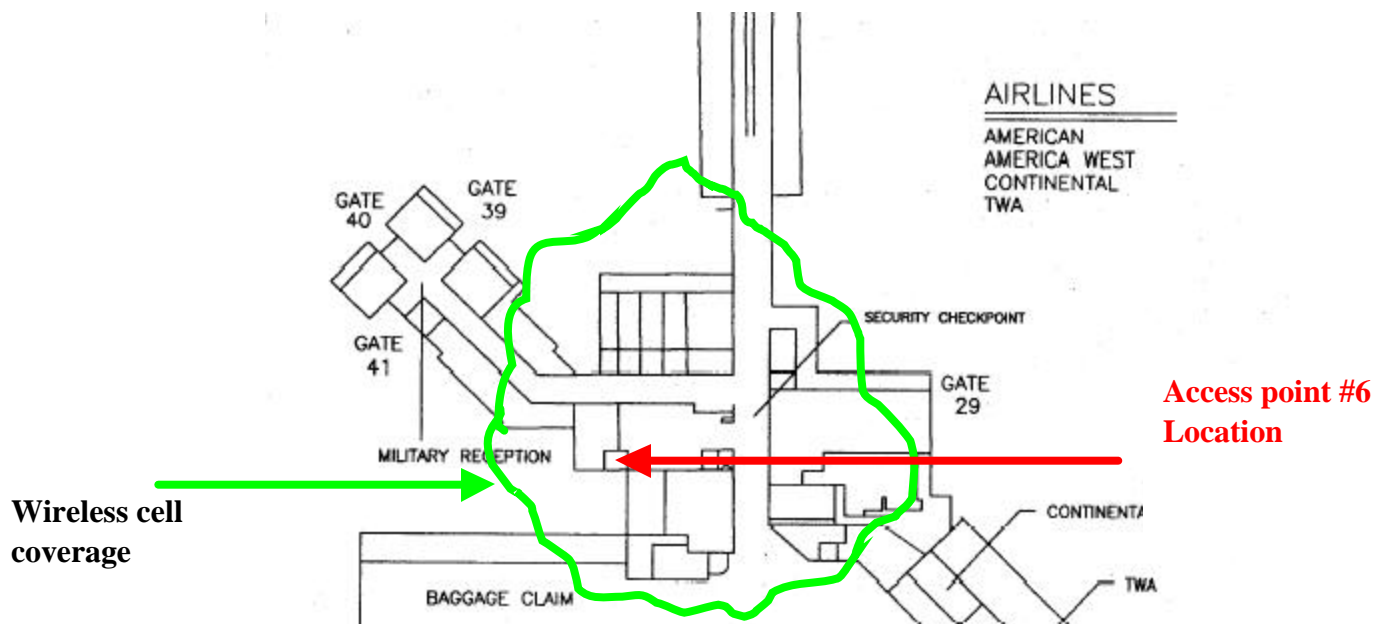
ACCESS POINT #6



Access point # 6 mount the Access point in the ceiling next to the stairwell for the chapel. Utilize power over Ethernet to gain power for the radio. Run a power line for the ½ watt amp.

Antenna location: Mount the 8dbi omni antenna in the ceiling pointing down. Connect the antenna to the amplifier with the 24 inch LMR 200 jumpers.

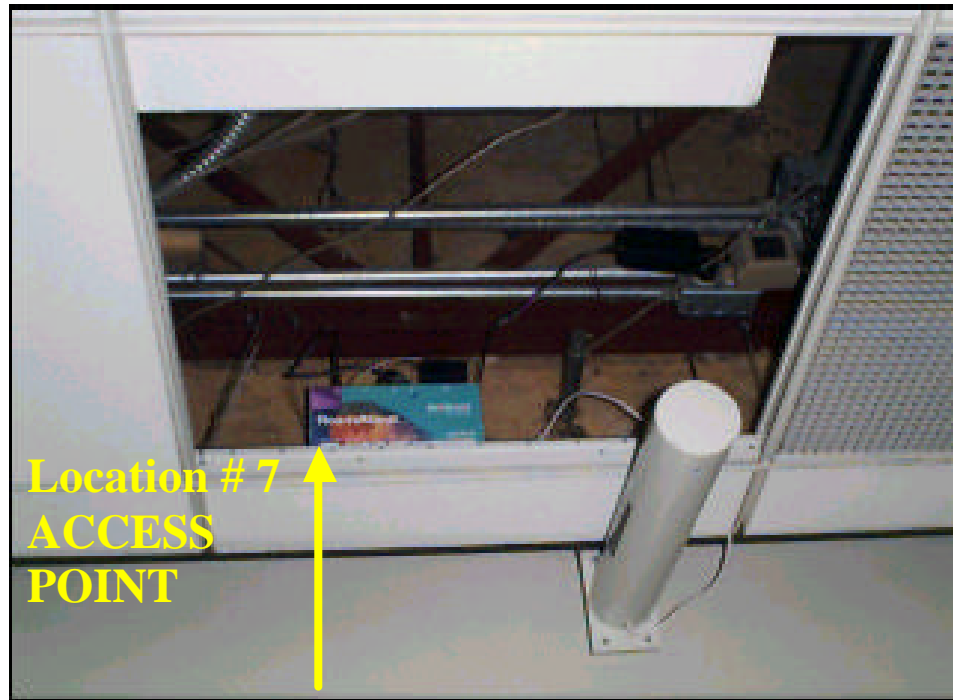
ACCESS POINT #6 CELL COVERAGE



ACCESS POINT #6 CONFIGURATION

Radio Model	ENTERASYS R2
Antenna type	OMNI
Antenna Gain (dBi)	8 dBi
TX Line Type	LMR 195
TX Line Length (ft)	2 ft
TX Line Unit loss (dB /100 ft)	19.0
TX Line loss (dB)	1.8
Connector loss (dB)	2.0
Frequency (MHz)	2437 MHz
Channel	6
Polarization	Vertical
Fade Margin (dB)	10 dB
TX power (mW)	30 mW
TX power (dB)	14.5
EIRP	35.5
RX Threshold Level (dBm)	-83

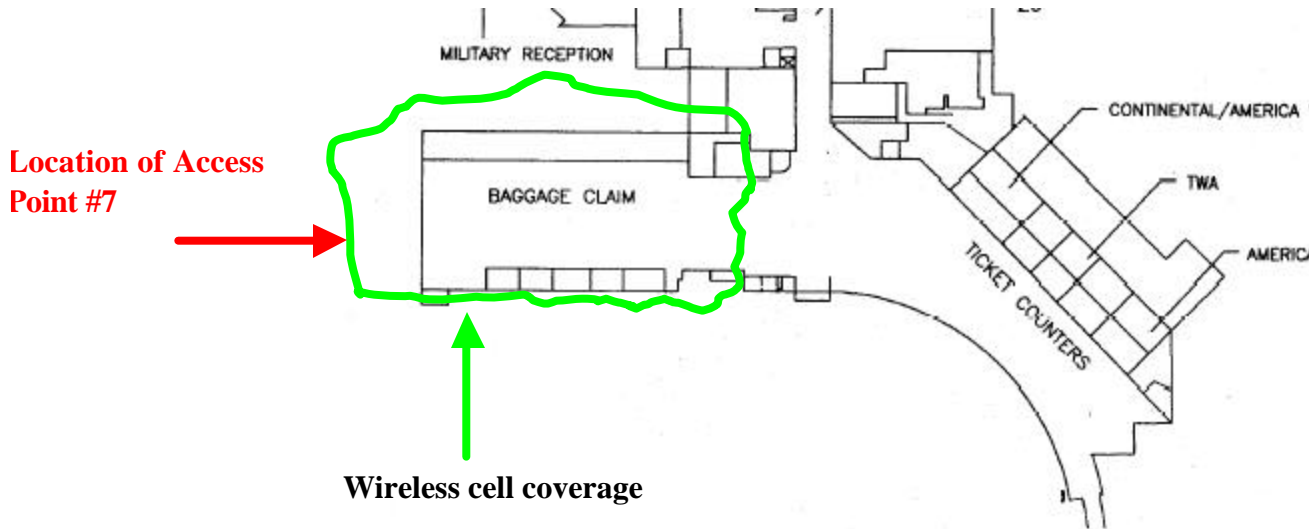
ACCESS POINT #7



Access point # 7 mount the Access point in the ceiling above the American Airlines Baggage claim Desk on the west wall of the baggage claim area. Utilize power over Ethernet to gain power for the radio. Run a power line for the ½ watt amp.

Antenna location: mount the 13.5dbi YAGI antenna in the ceiling pointing east. Connect the antenna to the Access Point with the 24-inch lucent pigtail.

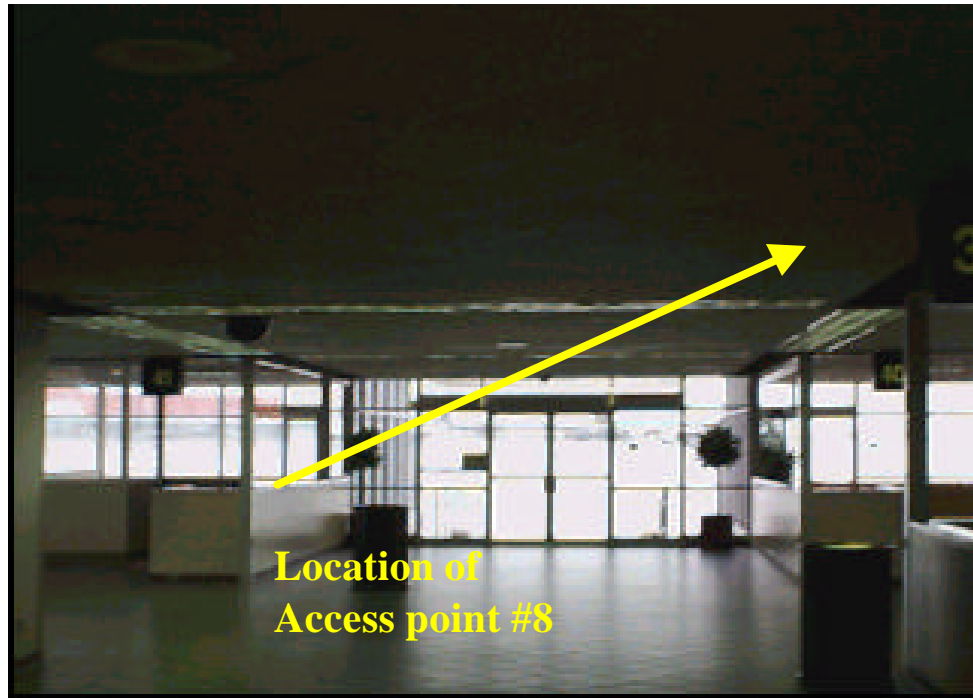
ACCESS POINT #7 CELL COVERAGE



ACCESS POINT #7 CONFIGURATION

Radio Model	ENTERASYS R2
Antenna type	YAGI Directional
Antenna Gain (dBi)	13.5 dBi
TX Line Type	LMR 195
TX Line Length (ft)	2 ft
TX Line Unit loss (dB /100 ft)	19.0
TX Line loss (dB)	1.8
Connector loss (dB)	2.0
Frequency (MHz)	2462 MHz
Channel	11
Polarization	Vertical
Fade Margin (dB)	10 dB
TX power (mW)	30 mW
TX power (dB)	14.5
EIRP	35.5
RX Threshold Level (dBm)	-83

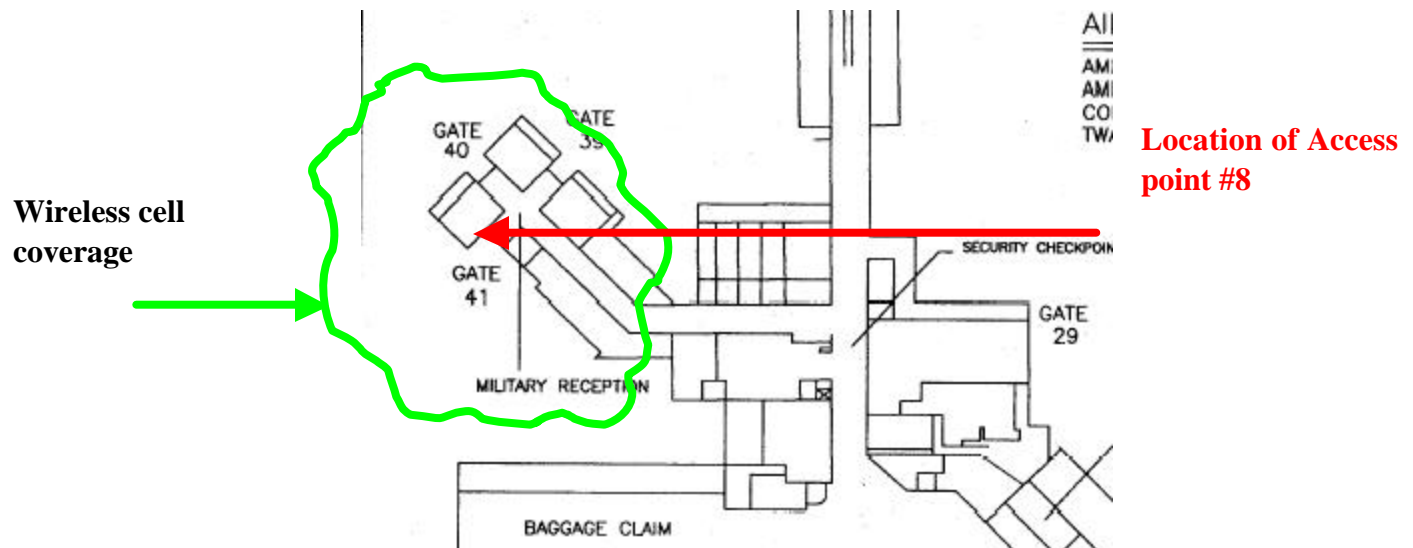
ACCESS POINT #8



Access point # 8 mount the Access point in the ceiling across from the rest rooms in the small Aircraft terminal. Utilize power over Ethernet to gain power for the radio. Run a power line for the ½ watt amp.

Antenna location: mount the 8dbi omni antenna in the ceiling pointing down. Connect the antenna to the Amplifier with the 24 inch LMR 200 jumpers.

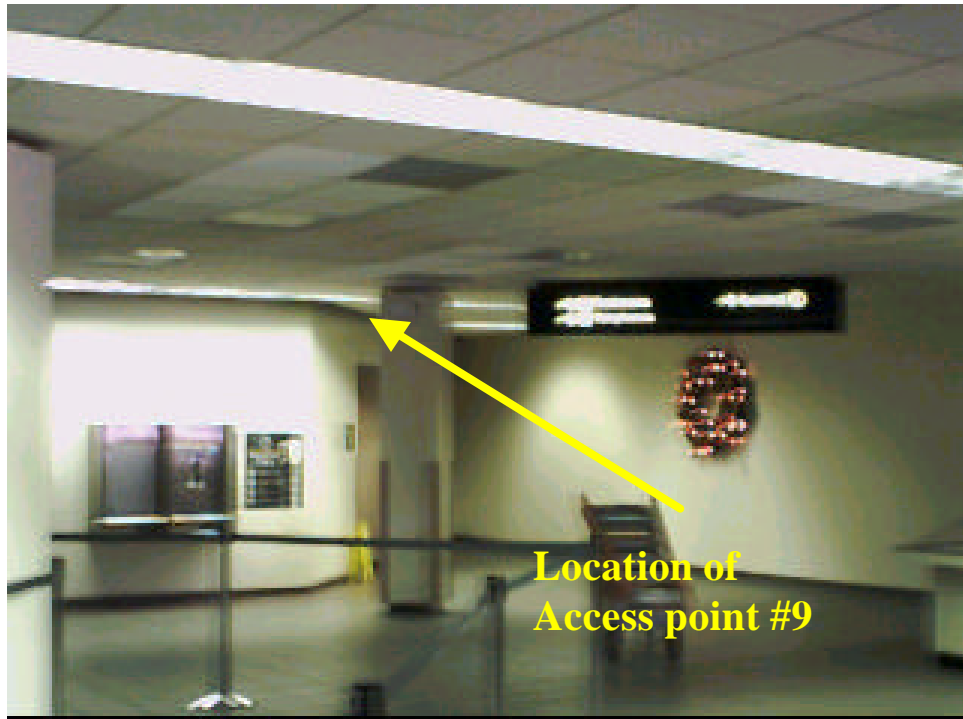
ACCESS POINT #8 CELL COVERAGE



ACCESS POINT #8 CONFIGURATION

Radio Model	ENTERASYS R2
Antenna type	OMNI
Antenna Gain (dBi)	8 dBi
TX Line Type	LMR 400
TX Line Length (ft)	2 ft
TX Line Unit loss (dB /100 ft)	6.7
TX Line loss (dB)	0.8
Connector loss (dB)	2.0
Frequency (MHz)	2412 MHz
Channel	1
Polarization	Vertical
Fade Margin (dB)	10 dB
TX power (mW)	30 mW
TX power (dB)	14.5
EIRP	35.5
RX Threshold Level (dBm)	-83

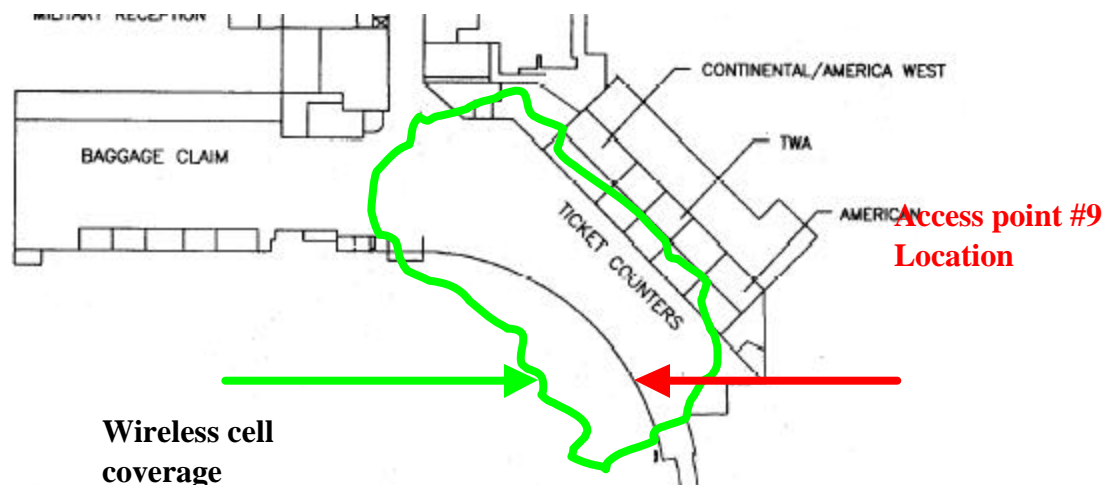
ACCESS POINT #9



Access point #9 mount the Access point on the pillar next to the rest rooms on the east side of the ticket counters. Utilize power over Ethernet to gain power for the radio. Run a power line for the ½ watt amp.

Antenna location: mount the 13.5dbi YAGI antenna in the ceiling pointing west. Connect the antenna to the Access Point with the 24-inch lucent pigtail connector.

ACCESS POINT #9 CELL COVERAGE



ACCESS POINT #9 CONFIGURATION

Radio Model	ENTERASYS R2
Antenna type	YAGI
Antenna Gain (dBi)	13.5 dBi
TX Line Type	LMR 400
TX Line Length (ft)	2 ft
TX Line Unit loss (dB /100 ft)	6.7
TX Line loss (dB)	0.8
Connector loss (dB)	2.0
Frequency (MHz)	2412 MHz
Channel	1
Polarization	Vertical
Fade Margin (dB)	10 dB
TX power (mW)	30 mW
TX power (dB)	14.5
EIRP	35.5
RX Threshold Level (dBm)	-83

TERMINAL #2 CELL LOCATIONS

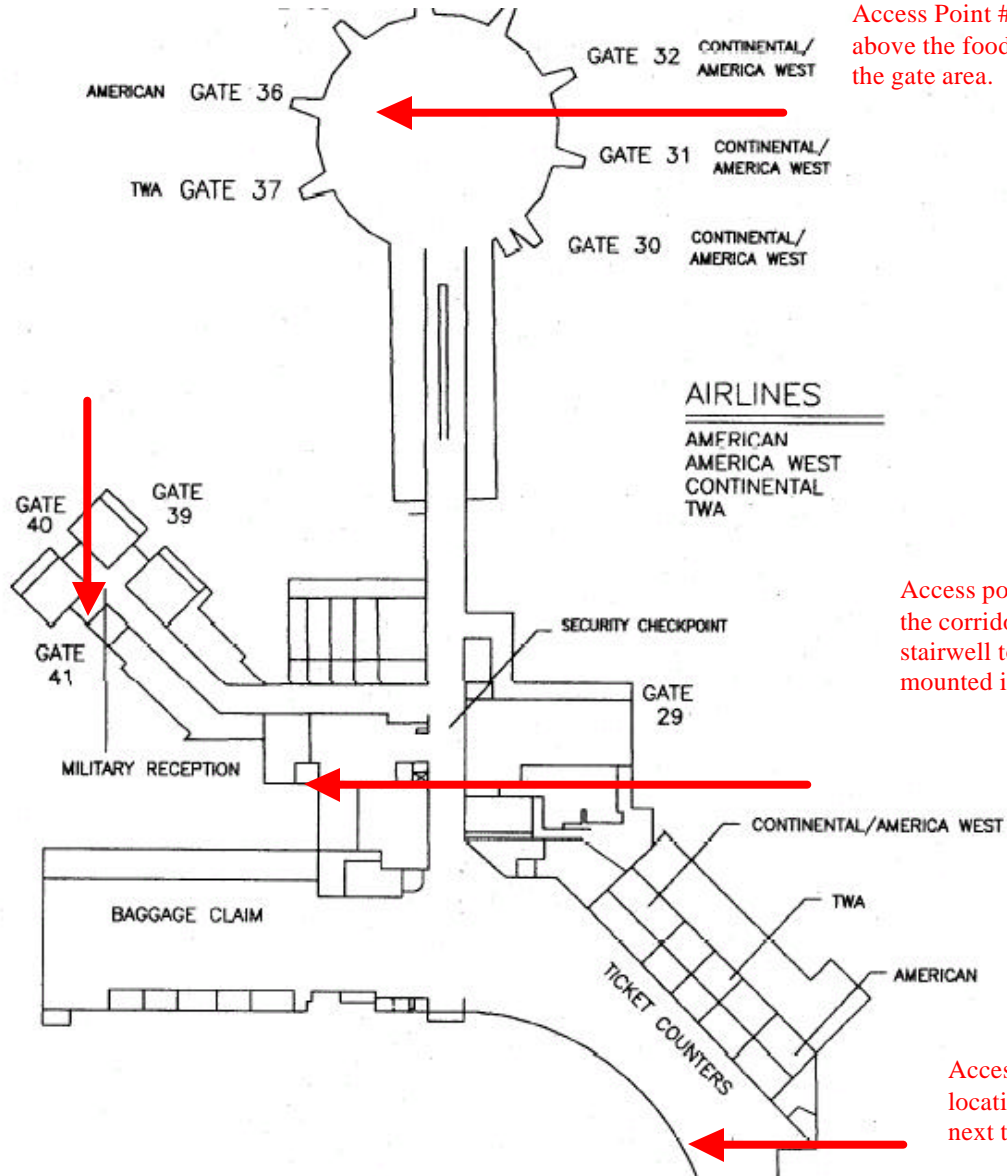
Access point # 8 is located the ceiling in the small craft terminal area across the hallway from the restrooms.

Access Point #5 located above the food stands in the gate area.

Access point #6 is located in the corridor next to the stairwell to the Chapel mounted in the ceiling.

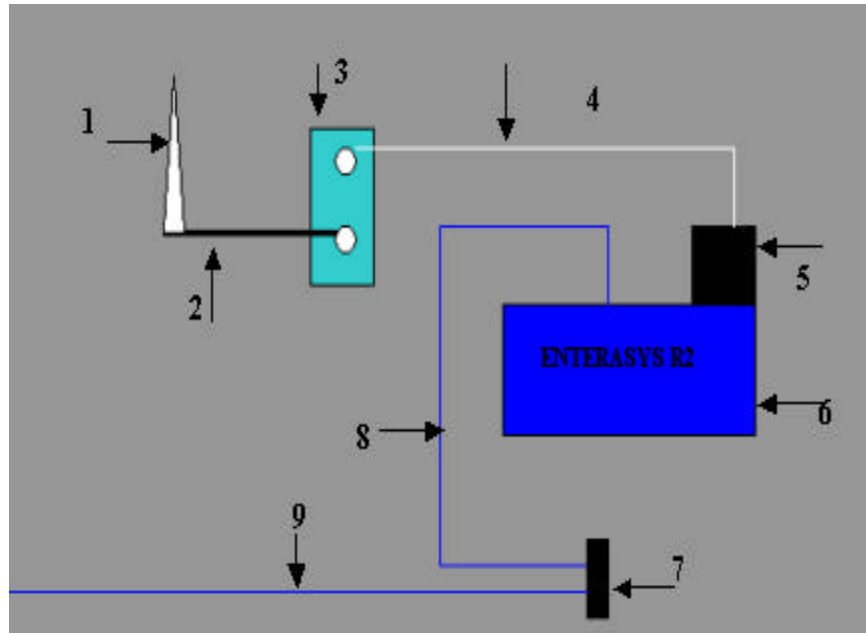
Access point #7 is located in the ceiling on the west wall in the baggage claim area

Access point #9 location is on the pillar next to the bathrooms.



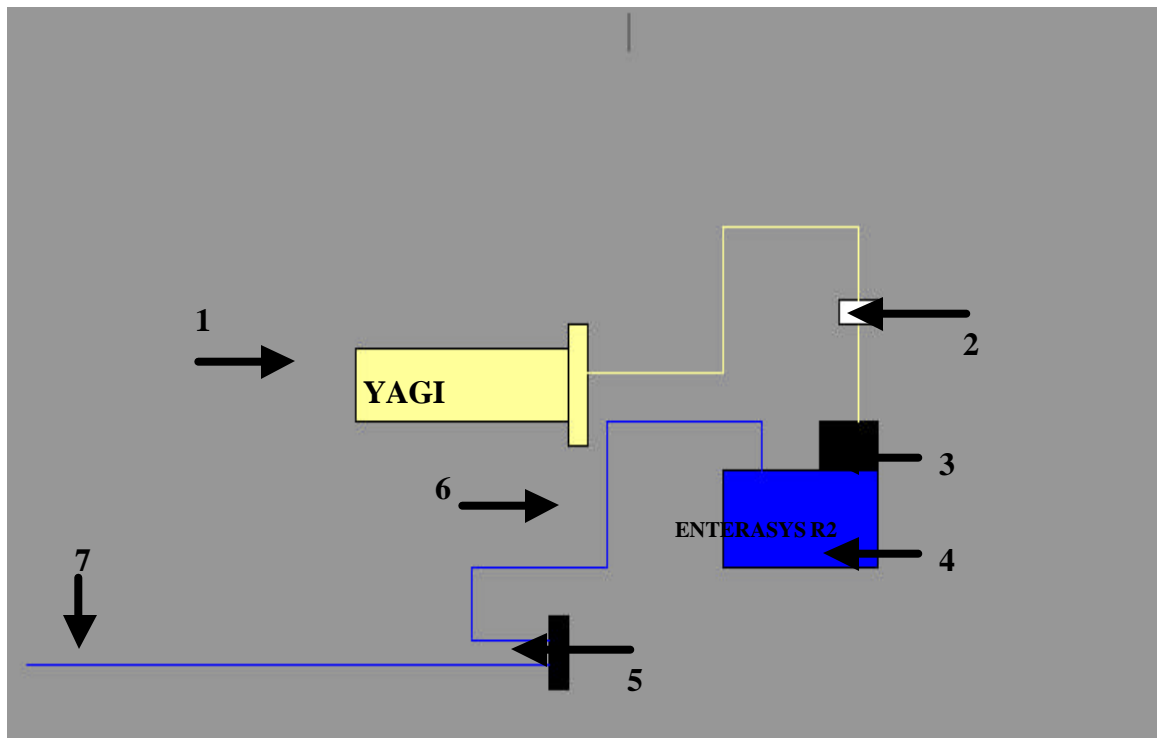
TERMINAL #2

RF NETWORK DIAGRAM FOR CELL LOCATIONS #5, #6, and #8 WITH AMPLIFIERS



1. Antenna
2. LMR jumper
3. Amplifier
4. Lucent pigtail
5. 128 bit PCMCIA card
6. ENTERASYS R2 Access point
7. Power over Ethernet
8. CAT5 cable to Access point
9. CAT5 cable to network

RF NETWORK DIAGRAM FOR CELL LOCATIONS #7 and #9



1. Antenna
2. Lucent pigtail
3. 128 bit PCMIA card
4. ENTERASYS R2 Access point
5. Power over Ethernet
6. CAT5 cable to Access point
7. CAT5 cable to network

OUTDOOR WIRELESS SURVEY LOCATIONS AND CONFIGURATIONS

OUTSIDE ACCESS POINT DETAIL TERMINAL #1

Access point #1



Access point #1 Location: mount the access point on the roof of terminal #1 on the south side of the building. Utilize power over Ethernet to gain power for the radio. Run a power line for the ½ watt amp.

Antenna location: mount the 10-dBi-omni antenna on a mast and tri pod. Connect the antenna with the 24-inch LMR 400 jumper.

ACCESS POINT #1 CONFIGURATION

Radio Model	ENTERASYS R2
Antenna Type	OMNI
Antenna Gain (dBi)	10 dBi
TX Line Type	LMR 400
TX Line Length (ft)	10 ft
TX Line Unit loss (dB /100 ft)	6.7
TX Line loss (dB)	.8
Connector loss (dB)	2.0
Frequency (MHz)	2412 MHz
Channel	6
Polarization	Vertical
Fade Margin (dB)	10 dB
TX power (mW)	30 mW
TX power (dB)	14.5
EIRP	35.5
RX Threshold Level (dBm)	-83

ACCESS POINT #2



Sorry no picture for Access point #2

Access point #2 Location: mount the access pointing in the NEMA enclosure on the north side of the roof of terminal #1 Utilize power over Ethernet to gain power for the radio. Run a power line for the ½ watt amp.

Antenna location: mount the 10-dBi-omni antenna on the wall on the corner of the terminal next to the glass sky windows. Connect the antenna with the 24 inch LMR 400 jumpers.

ACCESS POINT #2 CONFIGURATION

Radio Model	ENTERASYS R2
Antenna type	OMNI
Antenna Gain (dBi)	10 dBi
TX Line Type	LMR 400
TX Line Length (ft)	2 ft
TX Line Unit loss (dB /100 ft)	6.7
TX Line loss (dB)	.8
Connector loss (dB)	2.0
Frequency (MHz)	2437 MHz
Channel	11
Polarization	Vertical
Fade Margin (dB)	10 dB
TX power (mW)	30 mW
TX power (dB)	14.5
EIRP	35.5
RX Threshold Level (dBm)	-83

ACCESS POINT #3



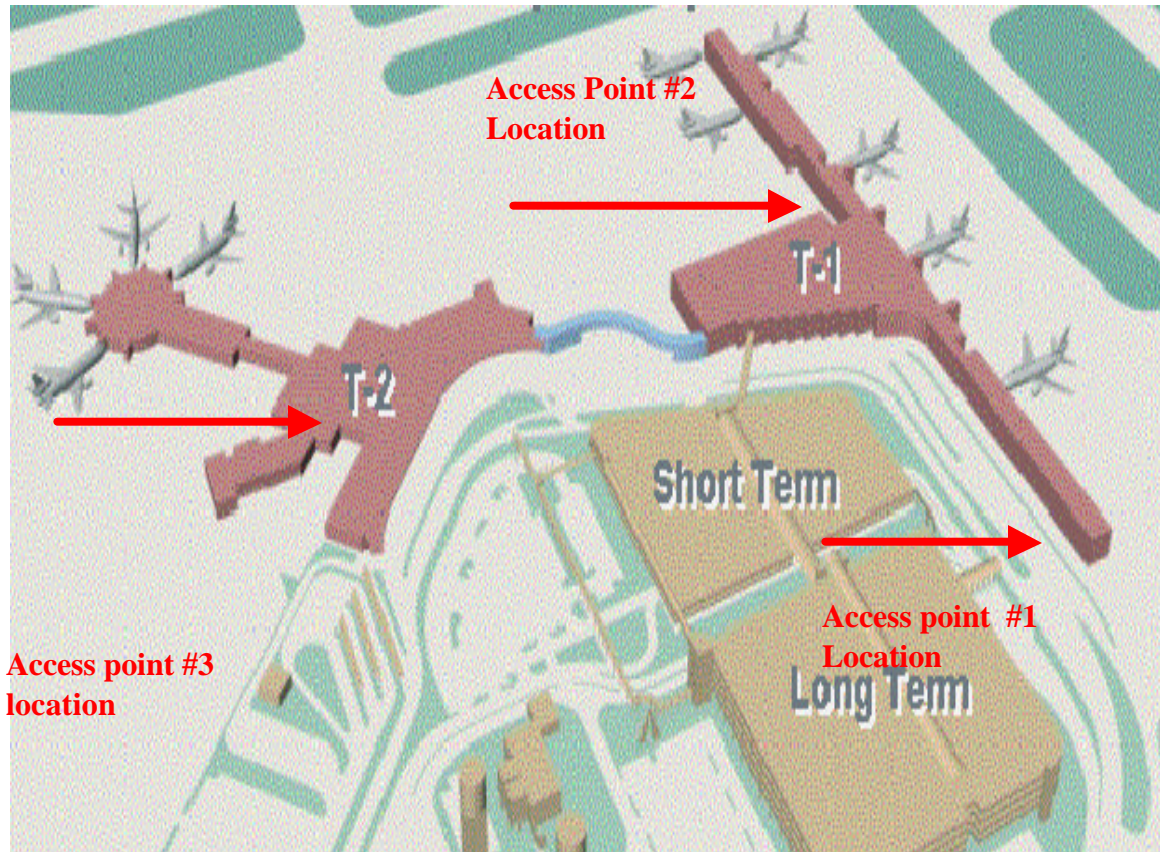
Access point #3 location: mount the access point in the NEMA enclosure to the mast attached to the outside wall on the roof of terminal #2. Utilize power over Ethernet to gain power for the radio. Run a power line for the ½ watt amp.

Antenna location: mount the 10 dBi omni antenna on the mast attached to the outside wall. Connect the antenna with the 24-inch LMR 400 jumper.

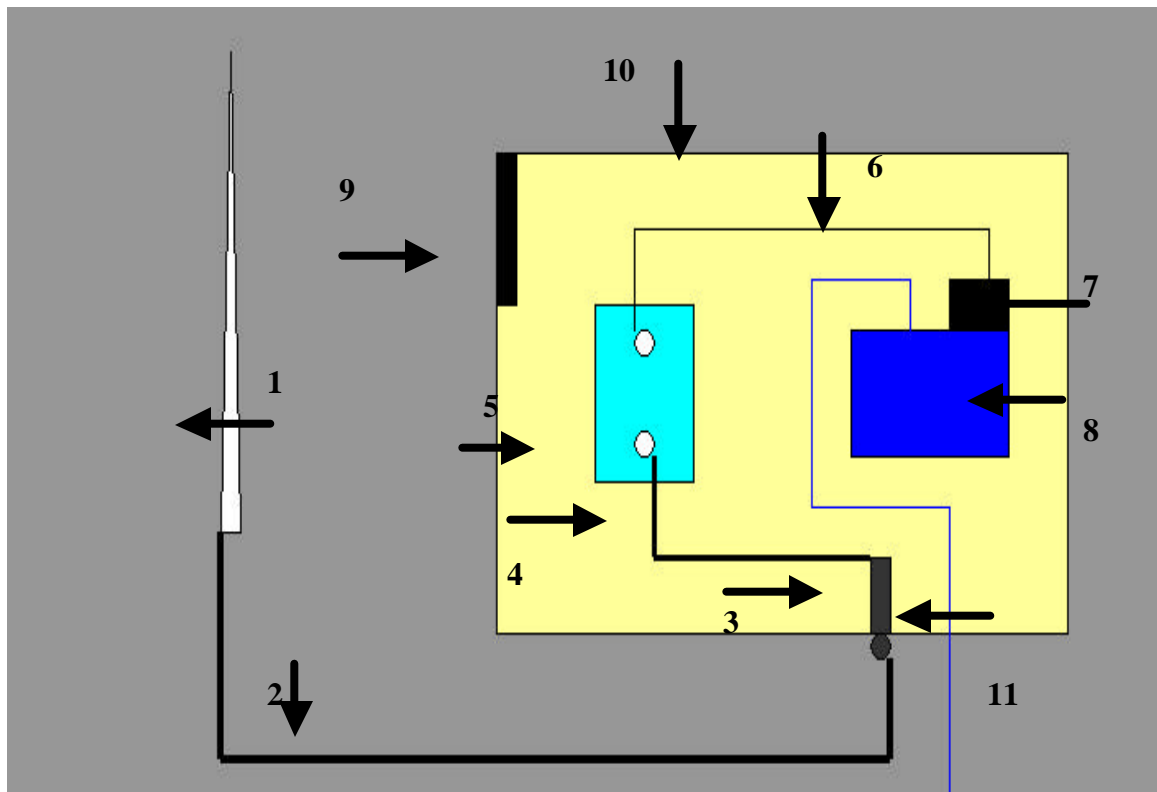
ACCESS POINT #3 CONFIGURATION

Radio Model	ENTERASYS R2
Antenna Type	OMNI
Antenna Gain (dBi)	10 dBi
TX Line Type	LMR 400
TX Line Length (ft)	10 ft
TX Line Unit loss (dB /100 ft)	6.7
TX Line loss (dB)	.8
Connector loss (dB)	2.0
Frequency (MHz)	2462 MHz
Channel	11
Polarization	Vertical
Fade Margin (dB)	10 dB
TX power (mW)	30 mW
TX power (dB)	14.5
EIRP	35.5
RX Threshold Level (dBm)	-83

OUTDOOR CELL LOCATIONS



OUTDOOR RF NETWORK DIAGRAM FOR CELL LOCATIONS

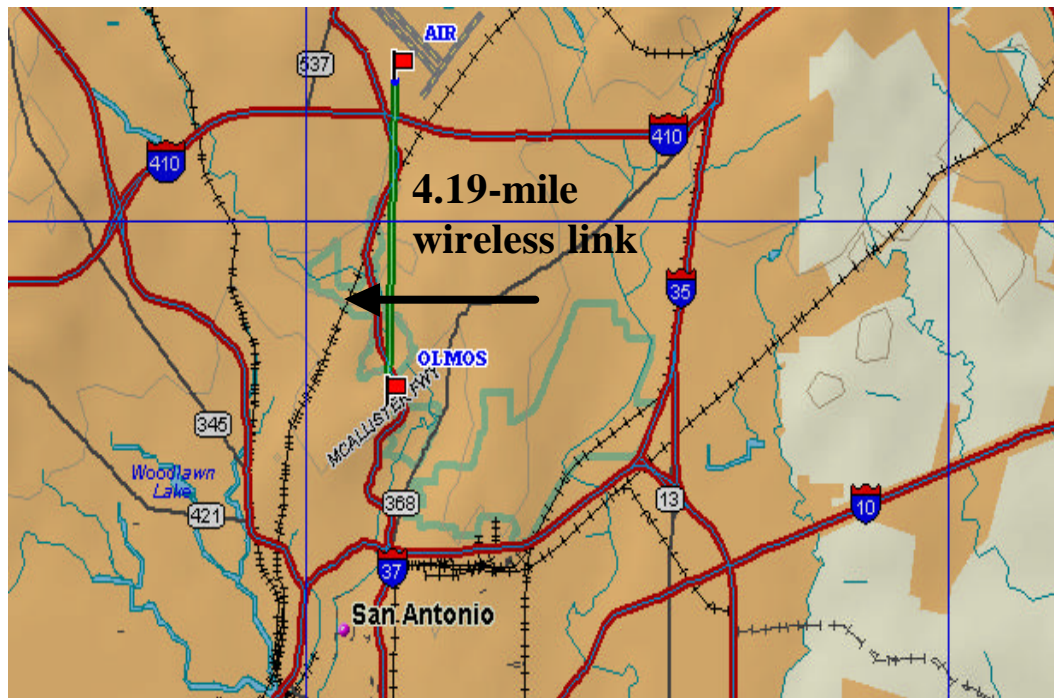


1. 1 10-dBi OMNI antenna
2. 2 ft LMR 400 cable
3. Lightning Arrestor
4. 1 Ft LMR200 cable
5. ½ WATT amplifier
6. Lucent pigtail connector
7. 128 bit PCMIA card
8. ENTERASYS R2 Access point
9. Cooling fan
10. NEMA enclosure
11. CAT5 cable to network

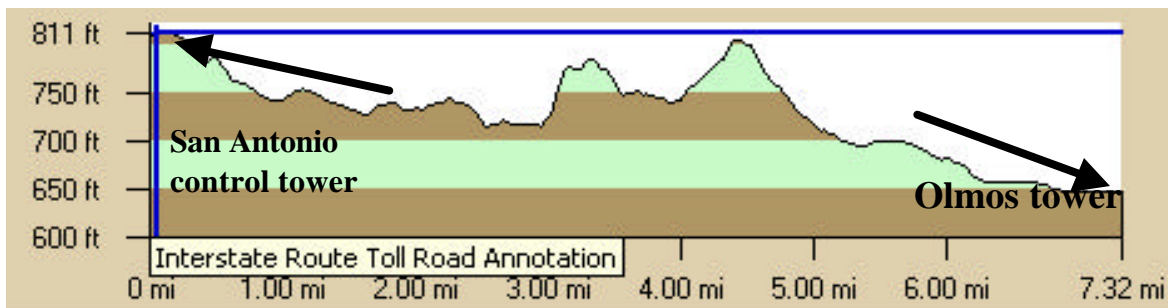
WIRELESS BRIDGE FEASIBILITY STUDY

BRIDGE LINK DETAIL

Bridge Link #1 from San Antonio International Airport Tower to the Olmos tower. Use two cells at each location to utilize Trunking for more bandwidth and as a backup link.



Line of sight between the control tower and the Olmos tower



NOTE:

The Line of sight does not include Tower elevation on either side

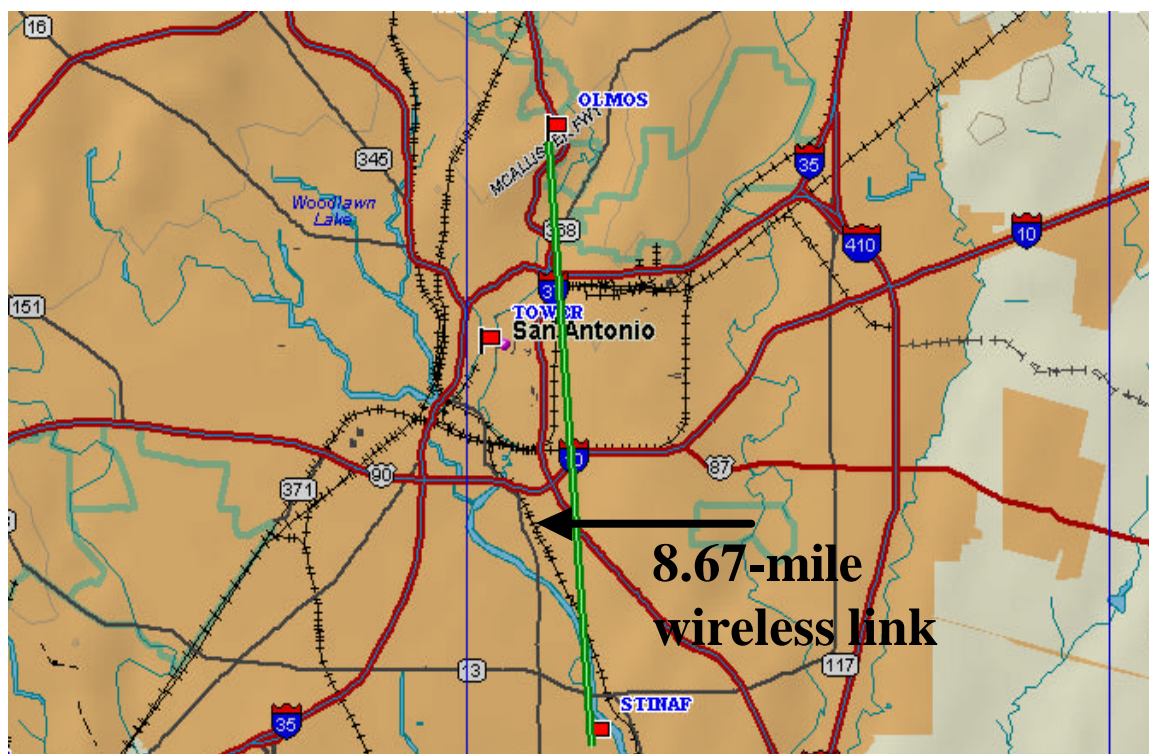
BRIDGE LINK #1-2.4 GHz CALCULATIONS

	<u>CONTROL TOWER</u>	<u>OLMOS TOWER</u>
Elevation (ft)	818 ft	797 ft
Latitude	W098.47'706°	W098.49'639°
Longitude	N29.52'619°	N29.42'169°
Magnetic azimuth (°)	183.1°	03.1 °
Vertical Angle (°)	+1.1°	-1.1°
Antenna Type	Directional grid	Directional grid
Antenna Height (ft)	80 ft	10 ft
Antenna Gain (dBi)	24	24
TX Line Type	LMR600	LMR600
TX Line Length (ft)	10	195
TX Line Unit loss (dB /100 ft)	4.4	4.4
TX Line loss (dB)	.4	8.5
Connector loss (dB)	1.0	1.0
Frequency (MHz)	2.412 MHz	2.412 MHz
Channel	1	1
Polarization	Vertical	Vertical
Path Length (mi)	4.19	4.19
Free Space loss (dB)	121.5	121.5
Fade Margin (dB)	10 dB	10 dB
Radio Model	Enterasys R2	Enterasys R2
TX power (mW)	30 mW	30 mW
TX power (dB)	14.5	14.5
RX Threshold Level (dBm)	-83	-83
Maximum RX Signal (dBm)	-78.3	-78.3

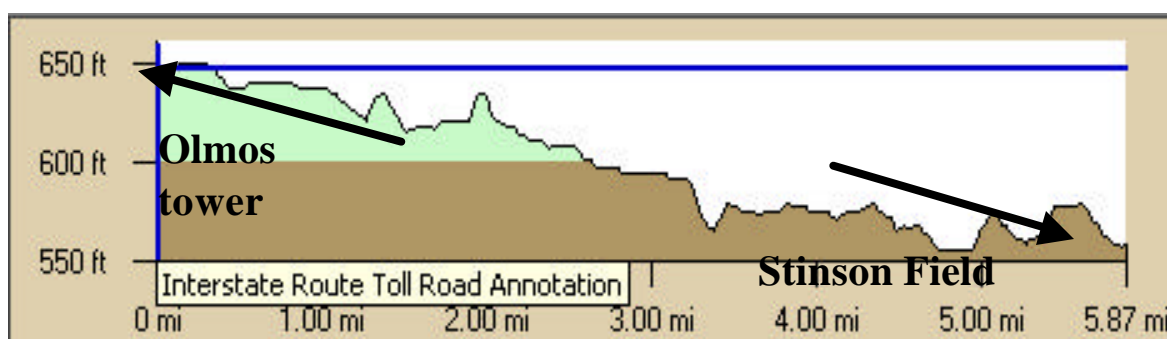
BRIDGE LINK #2-2.4 GHz CALCULATIONS

	<u>CONTROL TOWER</u>	<u>OLMOS TOWER</u>
Elevation (ft)	818 ft	797 ft
Latitude	W098.47'706°	W098.49'639°
Longitude	N29.52'619°	N29.42'169°
Magnetic azimuth (°)	183.1°	03.1 °
Vertical Angle (°)	+1.1°	-1.1°
Antenna Type	Directional grid	Directional grid
Antenna Height (ft)	80 ft	10 ft
Antenna Gain (dBi)	24	24
TX Line Type	LMR600	LMR600
TX Line Length (ft)	10	195
TX Line Unit loss (dB /100 ft)	4.4	4.4
TX Line loss (dB)	.4	8.5
Connector loss (dB)	1.0	1.0
Frequency (MHz)	2.412 MHz	2.412 MHz
Channel	6	6
Polarization	Vertical	Vertical
Path Length (mi)	4.19	4.19
Free Space loss (dB)	121.5	121.5
Fade Margin (dB)	10 dB	10 dB
Radio Model	Enterasys R2	Enterasys R2
TX power (mW)	30 mW	30 mW
TX power (dB)	14.5	14.5
RX Threshold Level (dBm)	-83	-83
Maximum RX Signal (dBm)	-78.3	-78.3

Bridge link #3 & #4 From the Olmos tower to the Stinson Air Traffic Control Tower.



Line of sight between the Olmos tower, and the Stinson air traffic Control tower.



NOTE:

The Line of sight does not include Tower elevation on either side

BRIDGE LINK #3 -2.4 GHz CALCULATIONS

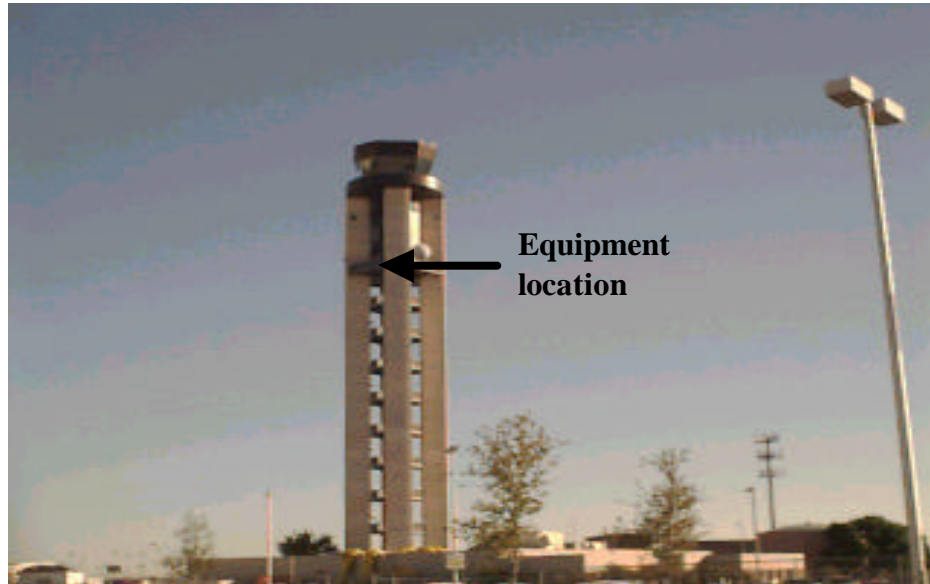
	<u>OLMOS TOWER</u>	<u>STINSON TOWER</u>
Elevation (ft)	797 ft	575 ft
Latitude	W098.49'639°	W098.46'799°
Longitude	N29.42'169°	N29.34'051°
Magnetic azimuth (°)	157.0°	337.0 °
Vertical Angle (°)	+1.1°	-1.1°
Antenna Type	Directional grid	Directional grid
Antenna Height (ft)	10 ft	50 ft
Antenna Gain (dBi)	24	24
TX Line Type	LMR600	LMR600
TX Line Length (ft)	195	3
TX Line Unit loss (dB /100 ft)	4.4	4.4
TX Line loss (dB)	8.5	.1
Connector loss (dB)	1.5	1.5
Frequency (MHz)	2.437 MHz	2.437 MHz
Channel	1	1
Polarization	Vertical	Vertical
Path Length (mi)	8.67	8.67
Free Space loss (dB)	119.6	119.6
Fade Margin (dB)	10 dB	10 dB
Radio Model	Enterasys R2	Enterasys R2
TX power (mW)	30 mW	30 mW
TX power (dB)	14.5	14.5
RX Threshold Level (dBm)	-83	-83
Maximum RX Signal (dBm)	-68.3	-68.3

BRIDGE LINK #4 -2.4 GHz CALCULATIONS

	<u>OLMOS TOWER</u>	<u>STINSON TOWER</u>
Elevation (ft)	797 ft	575 ft
Latitude	W098.49'639°	W098.46'799°
Longitude	N29.42'169°	N29.34'051°
Magnetic azimuth (°)	157.0°	337.0 °
Vertical Angle (°)	+1.1°	-1.1°
Antenna Type	Directional grid	Directional grid
Antenna Height (ft)	10 ft	50 ft
Antenna Gain (dBi)	24	24
TX Line Type	LMR600	LMR600
TX Line Length (ft)	195	3
TX Line Unit loss (dB /100 ft)	4.4	4.4
TX Line loss (dB)	8.5	.1
Connector loss (dB)	1.5	1.5

Frequency (MHz)	2.437 MHz	2.437 MHz
Channel	6	6
Polarization	Vertical	Vertical
Path Length (mi)	8.67	8.67
Free Space loss (dB)	119.6	119.6
Fade Margin (dB)	10 dB	10 dB
Radio Model	Enterasys R2	Enterasys R2
TX power (mW)	30 mW	30 mW
TX power (dB)	14.5	14.5
RX Threshold Level (dBm)	-83	-83
Maximum RX Signal (dBm)	-68.3	-68.3

EQUIPMENT LOCATION DETAIL



SAN ANTONIO AIR TRAFFIC CONTROL TOWER EQUIPMENT REQUIREMENTS

SITE NAME: San Antonio International airport air traffic control tower.

SITE ADDRESS:

SITE COORDANANCE: LONGITUDE: N 29.52619°

LATITUDE: W 098.47706°

GROUND ELEVATION: 818 ft

TOWER HEIGHT: 100 ft

EQUIPMENT LOCATION: Install the equipment 80 ft above ground level on the south side.

EQUIPMENT REQUIRED: 2 ENTERASYS R2 ACCESS POINTS, Vertical Horizon Fast Ethernet Switch.

CABLE REQUIRED: 2,3 ft LMR 400

CHANNEL: 1

ANTENNA: 2,24-dBi directional grid antenna mast mounted with lightning arrestors.

BEARING TO RADIO TOWER: 183.1°M



OLMOS TOWER

SITE NAME: OLMOS TOWER

SITE ADDRESS: Hildebrand and Hwy 281

SITE COORDANANCE: LONGITUDE: N 29.42169°

LATITUDE: W 098.49639°

GROUND ELEVATION: 797 ft

TOWER HEIGHT: 400 ft

EQUIPMENT LOCATION: Install the equipment on the roof of the tower

EQUIPMENT REQUIRED: 2, Multipoint -ENTERASYS R2 access points, and Vertical Horizon Fast Ethernet Switch.

CABLE REQUIRED: 2,10ft LMR 400 cables with 2-way splitter

CHANNEL: 1,6

ANTENNA: 4,24-dBi Directional grid antennas mast mounted with lightning arrestors.

BEARING TO STINSON: 157.0°M

BEARING TO SAN ANTONIO AIRPORT:03.1°M



STINSON AIR TRAFFIC CONTROL TOWER

SITE NAME: Stinson air traffic control tower.

SITE ADDRESS:

SITE COORDANANCE: LONGITUDE: N 29.34051°

LATITUDE: W 098.46799°

GROUND ELEVATION: 575 ft

TOWER HEIGHT: 100 ft

EQUIPMENT LOCATION: Install the equipment on the top of the control tower

EQUIPMENT REQUIRED: 2, ENTERASYS R2 Access point and a Vertical Horizon Fast Ethernet Switch.

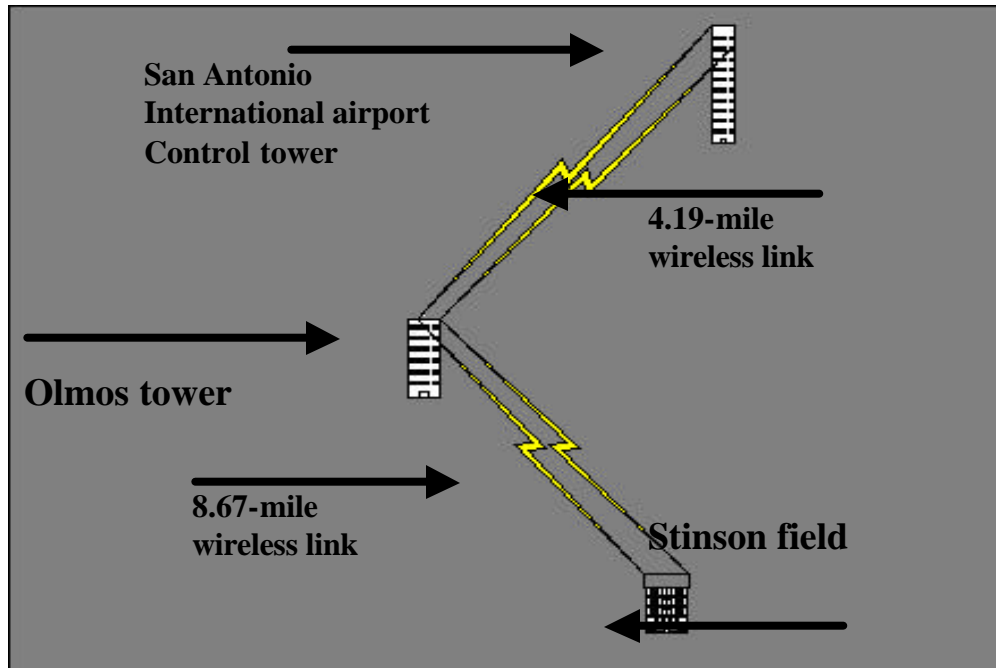
CABLE REQUIRED: 2, 3 ft LMR 400

CHANNEL: 1.6

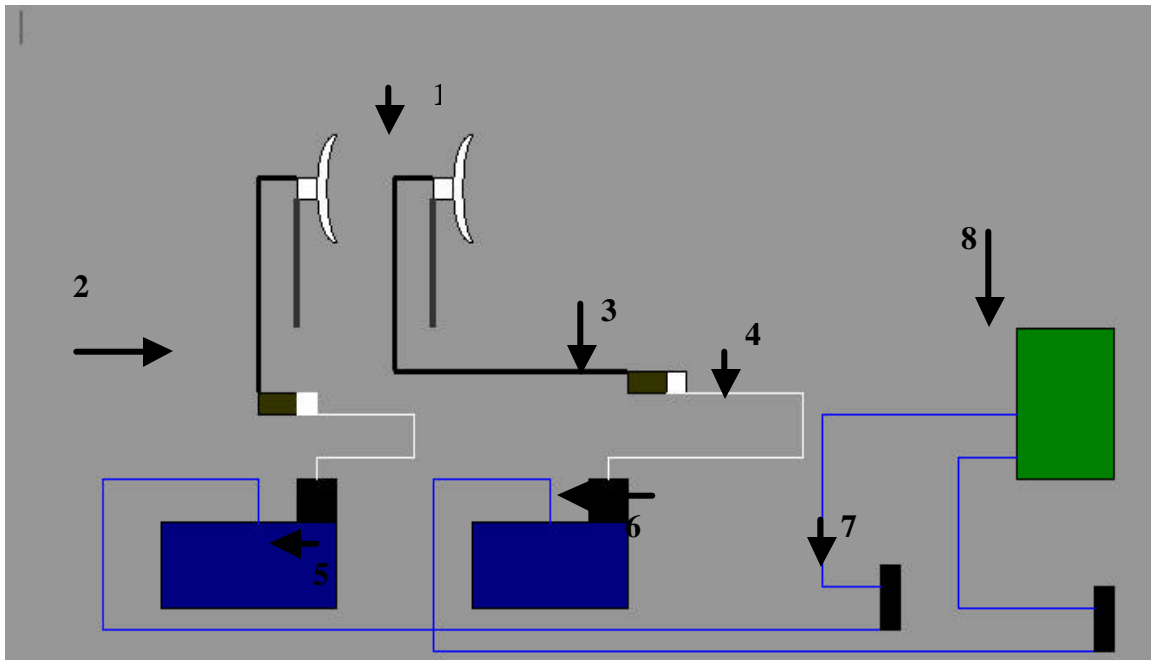
ANTENNA: 2.24-dBi directional grid antenna mast mounted with lightning arrestors.

BEARING TO OLMOS TOWER: 337.0°M

WIRELESS BRIDGE NETWORK DIAGRAM



TRUNKING DIAGRAM FOR EACH LOCATION



1. Antenna
2. LMR400 cable
3. Lightning arrestors
4. Lucent pigtail connectors
5. ENTERASYS R2
6. PCMIA cards
7. Power over Ethernet block
8. Vertical Horizon Fast Ethernet Switch.

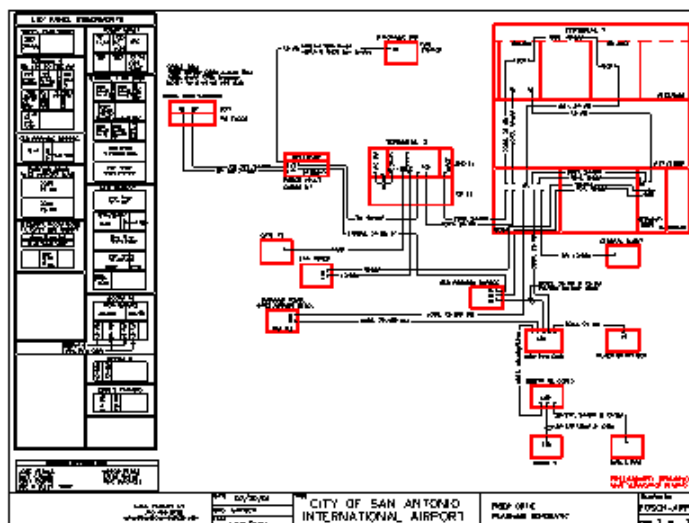
HARDWARE LIST

1. 18-ENTERASYS R2 Access points
2. 18- 128-bit PCMIA cards
3. 18- Lucent Pigtails
4. 10-1/2 WATT amplifiers
5. 6- one-WATT amplifiers
6. 3-Vertical horizons fast Ethernet switches (8 port)
7. 5- 8dBi OMNI Antennas
8. 3-10 dBi OMNI Antennas
9. 4-13.5 dBi YAGI Antennas

10. 4-24 dBi directional grid Antennas
11. 2-15 dBi OMNI Antennas
12. 9- Lightning Arrestors
13. 9- NEMA4 rated outdoor enclosures
14. 2 – 2-way splitters
15. 20- 3ft LMR400 jumper cables
16. 1 tripod
17. 2 wall mounts
18. 3 – 5ft masts

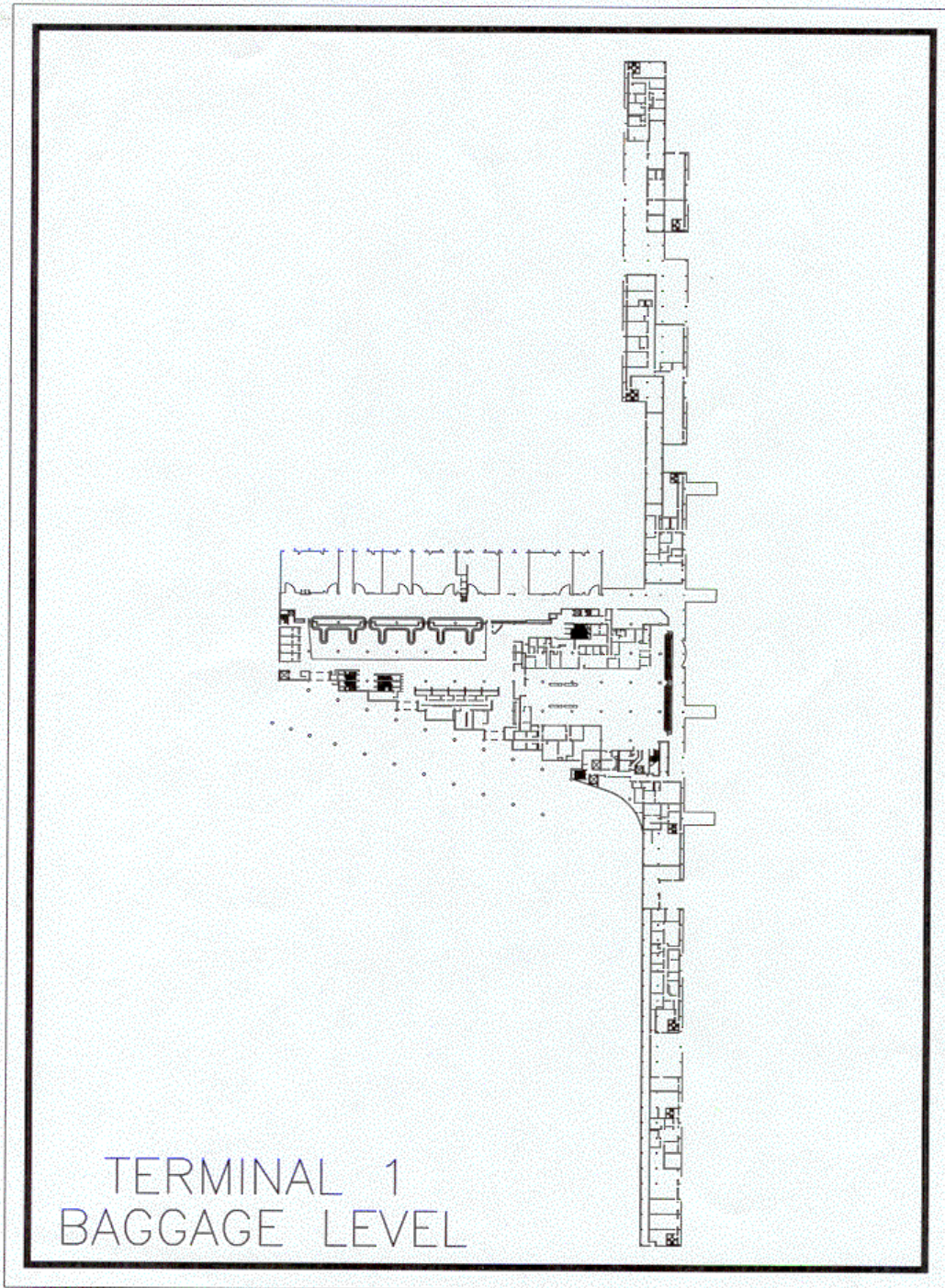
APPENDIX D

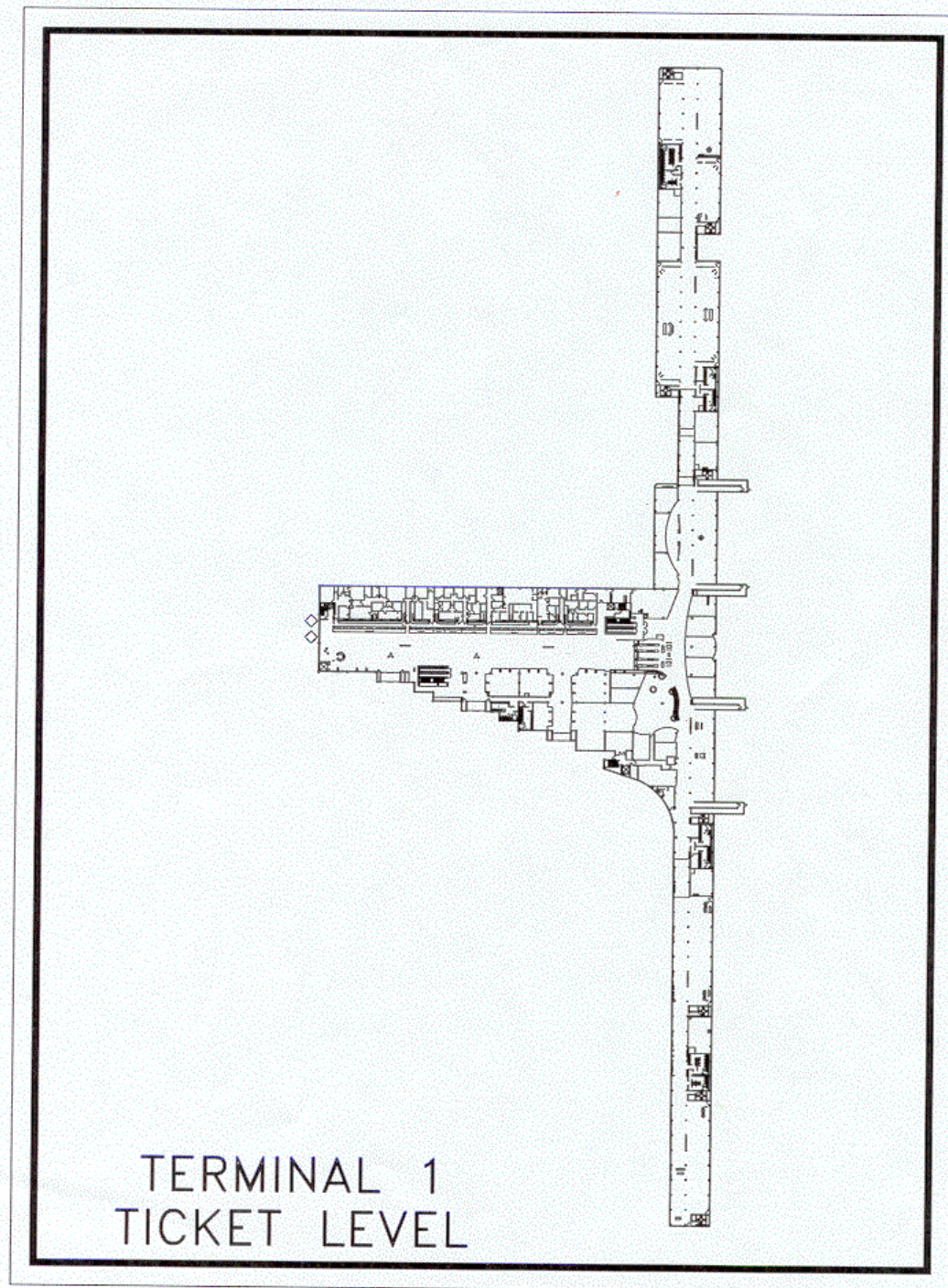
The following is a placement of fiber at San Antonio Intl. Airport.

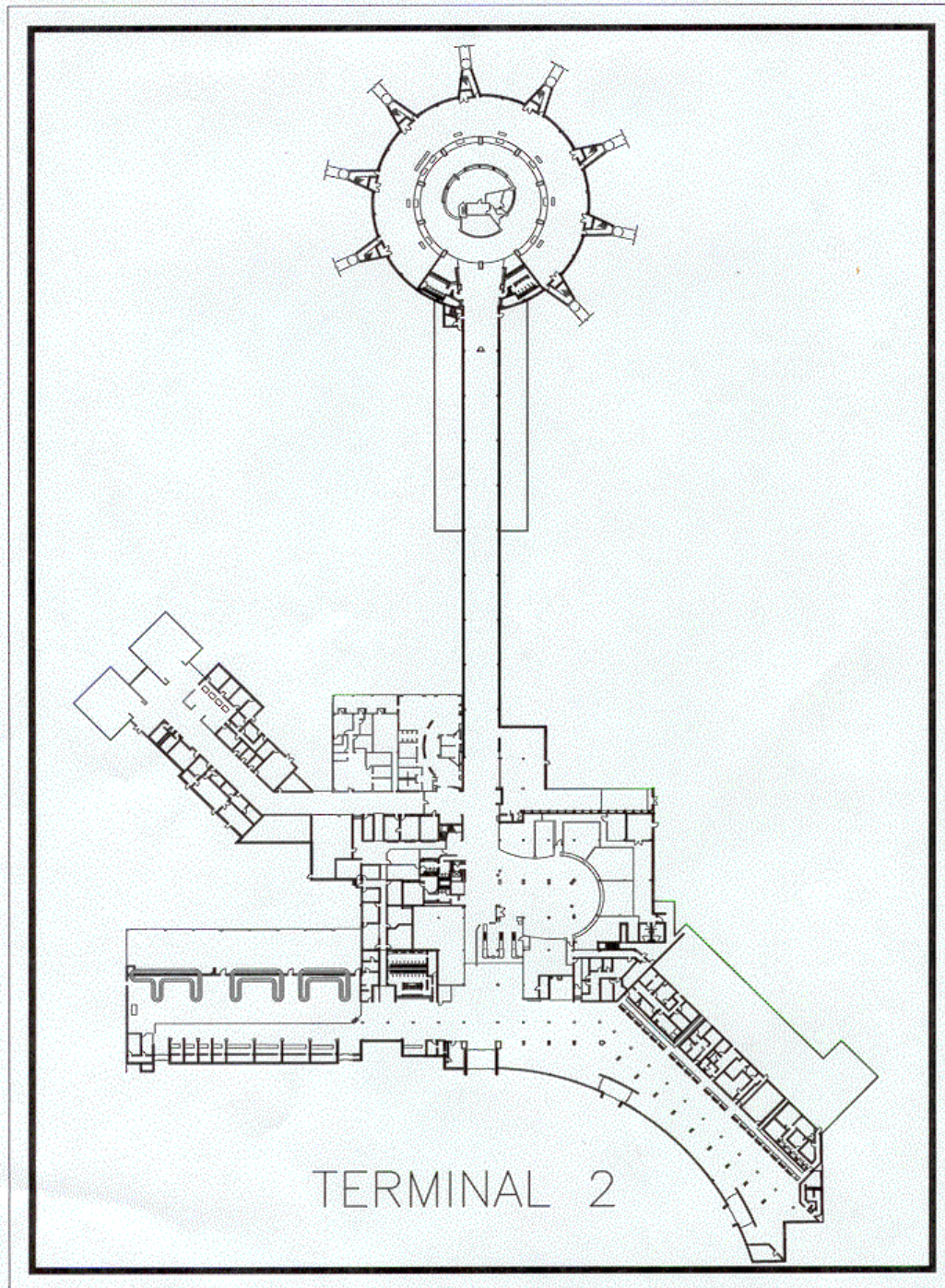


APPENDIX E

The following pages are building Layout.







APPENDIX F

The following list is provided as a reference only for parts and in no way reflect the actual end product. Each vendor must provide his or her own list to accomplish the objective of the San Antonio Aviation Intl. Airport wireless and infrastructure needs. Actual products must be similar to, or better than, the products listed below.

PART LIST 1

- CISCO2620XM-RPS Mid Performance 10/100 Ethernet Rout w/Cisco IOS IP-RPS ADPT
- S26CHK9-12213 Cisco 2600 Series IOS IP/FW/IDS PLUS IPSEC 3DES
- MEM2600XM-32U64D 32 to 64MB DRAM factory upgrade for Cisco 261x/2xXM
- MEM2600XM-16U32FS 16 to 32 MB Flash Factory Upgrade for the Cisco 2600XM
- NM-2W 2 WAN Card Slot Network Module(no LAN)
- WIC-1DSU-T1 1-Port T1/Fractional T1 DSU/CSU WAN Interface Card
- CON-SNT-26XX SMARTnet 8x5xNBD for Cisco26XX
- PWR600-AC-RPS-CAB 600W Redundant AC Power System With DC Power Cables
- CAB-RPSAC AC Power Cord North America for RPS
- CON-SNT-RPS600 SMARTnet 8x5xNBD for PWR600-AC-CAB/NCAB
- WS-C2950-12 12 port, 10/100 Catalyst Switch, Standard Image only
- CAB-AC Power Cord,110V
- CON-SNT-C2950-12 8x5xNBD Svc, Cat2950: 12 port: 10/100 autosense/nego.
- CVPN3030-RED VPN 3030 Concentrator (Redun. and 2 P/S);1500users@50Mbps
- CVPN3030-SW-35-K9 ^Rel 3.5 SW Load VPN 3030 Concentrator (Reqd for 3030)
- CAB-AC Power Cord,110V
- CON-SNT-VPN3030R 8x5xNBD Svc, Cisco VPN 3030-RED
- WS-C3550-12G 10 GBIC ports and 2-10/100/1000BaseT ports
- CAB-AC Power Cord,110V
- CON-SNT-C3550-12G 8x5xNBD Svc, 10 GBIC ports and 2-10/100/1000BaseT port
- WS-G5484= 1000BASE-SX Short Wavelength GBIC (Multimode only)
- WS-G5486= 1000BASE-LX/LH long haul GBIC (singlemode or multimode)
- WS-C3550-12G 10 GBIC ports and 2-10/100/1000BaseT ports
- CAB-AC Power Cord,110V
- CON-SNT-C3550-12G 8x5xNBD Svc, 10 GBIC ports and 2-10/100/1000BaseT port
- WS-G5484= 1000BASE-SX Short Wavelength GBIC (Multimode only)
- WS-G5486= 1000BASE-LX/LH long haul GBIC (single mode or multimode)
- WS-C3550-24PWR-SMI 24-10/100 inline power + 2 GBIC ports: SMI
- CAB-AC Power Cord,110V
- CON-SNT-C3550SMI SMARTNET 8X5XNBD 24-10/100 inline pwr,2 GBIC prts:SMI
- WS-G5484= 1000BASE-SX Short Wavelength GBIC (Multimode only)
- WS-G5486= 1000BASE-LX/LH long haul GBIC (single mode or multimode)
- WS-C3550-48-SMI 48-10/100 and 2 GBIC ports:Std Multilayer SW Image
- CAB-AC Power Cord,110V
- CON-SNT-C3550-48S 8x5xNBD Svc, 48-10/100 and 2 GBIC ports:Std Multilayer

- WS-G5484= 1000BASE-SX Short Wavelength GBIC (Multimode only)
- WS-G5486= 1000BASE-LX/LH long haul GBIC (single mode or multimode)
- CISCO3745 Cisco 3700 Series 4- Slot Multiservice Access Router
- PWR-3745-AC AC Power Supply for the Cisco 3745
- PWR-3745-AC/2 Redundant AC System Power Supply for the Cisco 3745
- CAB-AC Power Cord,110V
- S374CP-12211YT Cisco 3745 Series IOS IP PLUS
- QDM-2.0 QoS Device Manager
- MEM3745-32CF-EXT 32MB External Compact Flash factory upgrade for Cisco 3745
- NM-1GE 1 Port GE Network Module
- CON-SNT-3745 8x5xNBD Svc, Cisco3745 4 slot Appl.Svs Rtr
- WS-G5484= 1000BASE-SX Short Wavelength GBIC (Multimode only)
- IDS-4235-K9 4235 Sensor(chassis, s/w, SSH, 10/100/1000BaseT w/ RJ-45)
- CAB-AC Power Cord,110V
- IDS-PWR Spare Power Supply for the IDS 4235/4250 Appliance Sensors
- CON-SNT-IDS4235K9 8x5xNBD Svc, 4235,Sensor(chassis,s/w,SSH,10/100/10
- WS-C6509 Catalyst 6509 Chassis
- WS-CAC-2500W Catalyst 6000 2500W AC Power Supply
- WS-CAC-2500W/2 Catalyst 6000 Second 2500W AC Power
- CAB-AC-2500W-US1 Power Cord, 250Vac 16A, straight blade NEMA 6-20 plug, US
- SC6K-S2CVK8-7.4.3 Cat6K Supervisor 2 Flash Image w/Cisco View, Release 7.4.3
- WS-X6K-S2-MSFC2 Catalyst 6500 Supervisor Engine-2, 2GE, plus MSFC-2 / PFC-2
- S6MSF2ZV-12113E Catalyst 6000 MSFC2 IOS SERVICE PROVIDER W/VIP
- MEM-S2-128MB Catalyst 6000 Sup2 Mem, 128MB DRAM Option
- MEM-MSFC2-128MB Catalyst 6000 MSFC-2 Mem, 128MB DRAM Option
- WS-X6K-S2-MSFC2/2 *Cat 6500 Red. Sup2, 2GE, MSFC2 and PFC2 (In Chassis Only)
- S6MSF2ZV-12113E Catalyst 6000 MSFC2 IOS SERVICE PROVIDER W/VIP
- MEM-S2-128MB Catalyst 6000 Sup2 Mem, 128MB DRAM Option
- MEM-MSFC2-128MB Catalyst 6000 MSFC-2 Mem, 128MB DRAM Option
- WS-X6500-SFM2 Catalyst 6500 Switch Fabric Module 2
- WS-X6348-RJ45V Catalyst 6500 48-port 10/100, Inline Power, RJ-45
- WS-X6516-GBIC Catalyst 6500 16-port GigE Mod: Fabric-Enabled (Req. GBICs)
- WS-G5484 1000BASE-SX Short Wavelength GBIC (Multimode only)
- WS-G5486 1000BASE-LX/LH long haul GBIC (single mode or multimode)
- WS-X6381-IDS Catalyst 6000 Intrusion Detection System Module
- SC6K-IDSM-3-K9 Catalyst 6000 IDS Module v3.0 Base Software
- CON-SNT-WS-C6509 8x5xNBD Service, Catalyst 6509
- WS-C6509 Catalyst 6509 Chassis
- WS-CAC-2500W Catalyst 6000 2500W AC Power Supply
- WS-CAC-2500W/2 Catalyst 6000 Second 2500W AC Power
- CAB-AC-2500W-US1 Power Cord, 250Vac 16A, straight blade NEMA 6-20 plug, US
- SC6K-S2CVK8-7.4.3 Cat6K Supervisor 2 Flash Image w/CiscoView, Release 7.4.3
- WS-X6K-S2-MSFC2 Catalyst 6500 Supervisor Engine-2, 2GE, plus MSFC-2 / PFC-2
- S6MSF2ZV-12113E Catalyst 6000 MSFC2 IOS SERVICE PROVIDER W/VIP
- MEM-S2-128MB Catalyst 6000 Sup2 Mem, 128MB DRAM Option
- MEM-MSFC2-128MB Catalyst 6000 MSFC-2 Mem, 128MB DRAM Option

- WS-X6K-S2-MSFC2/2 *Cat 6500 Red. Sup2, 2GE, MSFC2 and PFC2 (In Chassis Only)
- S6MSF2ZV-12113E Catalyst 6000 MSFC2 IOS SERVICE PROVIDER W/VIP
- MEM-S2-128MB Catalyst 6000 Sup2 Mem, 128MB DRAM Option
- MEM-MSFC2-128MB Catalyst 6000 MSFC-2 Mem, 128MB DRAM Option
- WS-X6500-SFM2 Catalyst 6500 Switch Fabric Module 2
- WS-X6348-RJ45V Catalyst 6500 48-port 10/100, Inline Power, RJ-45
- WS-X6516-GBIC Catalyst 6500 16-port GigE Mod: Fabric-Enabled (Req. GBICs)
- WS-G5484 1000BASE-SX Short Wavelength GBIC (Multimode only)
- WS-G5486 1000BASE-LX/LH long haul GBIC (single mode or multimode)
- WS-X6381-IDS Catalyst 6000 Intrusion Detection System Module
- SC6K-IDSM-3-K9 Catalyst 6000 IDS Module v3.0 Base Software
- CON-SNT-WS-C6509 8x5xNBD Service, Catalyst 6509
- CWWLSE-1105-K9 Wireless LAN Solution 1.3; Includes HW and SW
- CAB-AC Power Cord,110V
- CWWLSE-1.3-SW-K9 Config. Option; Mandatory WLSE 1.3 software
- CON-SNT-CWLSE1105 8x5xNBD Svc, Wireless LAN Solution 1.0; Includes HW a
- HIDS-AGNT-K9 IDS Host Sensor Agent License(s), License Only
- HIDS-STD-WIN-K9 Windows Standard Agent (Protects OS)
- HIDS-WEB-WIN-K9 Windows Web Server Agent (Protects OS + WWW app)
- PIX-525-UR-BUN PIX 525UR Bundle (Chassis, unrestricted SW, 2 FE ports, VAC)
- CAB-AC Power Cord,110V
- SF-PIX-6.2 PIX v6.2 Software for the PIX 515E, 525 and 535 Chassis
- PIX-4FE PIX Four-port 10/100 Ethernet interface, RJ45
- PIX-1GE-66 66MHz Gigabit Ethernet Interface, Multimode (SX) SC
- PIX-1GE-66 66MHz Gigabit Ethernet Interface, Multimode (SX) SC
- PIX-VPN-DES 56-bit DES VPN feature license for PIX Firewall
- PIX-525-SW-UR Unrestricted feature license for PIX 525 Firewall
- CON-SNT-PIX525UR 8x5xNBD Svc, PIX-525-UR-BUN Chassis S/W Lic bundle
- PIX-525-FO-BUN PIX 525FO Bundle (Chassis, failover SW, 2 FE ports, VAC)
- CAB-AC Power Cord,110V
- SF-PIX-6.2 PIX v6.2 Software for the PIX 515E, 525 and 535 Chassis
- PIX-4FE PIX Four-port 10/100 Ethernet interface, RJ45
- PIX-1GE-66 66MHz Gigabit Ethernet Interface, Multimode (SX) SC
- PIX-1GE-66 66MHz Gigabit Ethernet Interface, Multimode (SX) SC
- PIX-VPN-DES 56-bit DES VPN feature license for PIX Firewall
- PIX-525-SW-FO Failover feature license for PIX 525 Firewall
- CON-SNT-PIX525FO 8x5xNBD Svc, PIX-525-FO-BUN Chassis S/W Lic bundle
- CWVMS-2.1-WINR-K9 VMS 2.1 WIN 20 Device Restricted HIDS 3DES SW
- CWVMS-IDS-2.5 License For IDS Host Sensor Console
- SP-SAS-CWVMS-R2 SAS Svc, CiscoWorks VMS 2.0
- IDS-4250-SX-K9 4250 Sensor (chassis, s/w, SSH, 1000BaseSX w/ SC connector)
- CAB-AC Power Cord,110V
- CON-SNT-IDS4250SK 8x5xNBD Svc, 4250 Sensor,(chassis,s/w,SSH,1000Base
- CSACS-3.1-WIN-K9 Cisco Secure ACS 3.1 for Windows
- CON-SAS-CSACS-3.1 SW APP SUPP Cisco Secure ACS 3.1
- AIR-AP1220B-A-K9 802.11B AP W/AVAIL CBUS SLOT, FCC CNFG

- AIR-BR350-A-K9 2.4 GHZ, 11 MBPS BRIDGE, DUAL RP-TNC CONNECTORS, FCC CNFG
- AIR-ANT1949 2.4 GHZ, 13.5 DBI YAGI MAST MOUNT ANT. W/ RP-TNC CONNECTOR
- AIR-ACC2662 ANTENNA MOUNT FOR USE WITH ANT1949
- AIR-ANT3338 2.4 GHZ, 21 DBI SOLID DISH ANTENNA W/RP-TNC CONNECTOR
- AIR-ANT2506 2.4 GHZ, 5.2 DBI MAST MOUNT OMNI ANT. W/RP-TNC CONNECTOR
- AIR-CAB020LL-R 20 FT LOW LOSS CABLE ASSEMBLY W/RP-TNC CONNECTORS
- AIR-CAB050LL-R 50 FT. LOW LOSS CABLE ASSEMBLY W/RP-TNC CONNECTORS
- AIR-ACC3354 LIGHTNING ARRESTOR WITH GROUNDING RING, RP-TNC CONNECTOR
- AIR-PWRINJ= 350 SINGLE PORT POWER INJECTOR- SPARE
- AIR-PWRINJ2= POWER INJECTOR FOR 1100, 1200 SERIES

PART LIST 2

Core (XSR & ER16)

- XSR-1850
- XSR-3150
- NIM-T1/E1-02
- ER16-CS
- ER16-AC
- ER16-CM3-128
- XP-SYS-FW-32
- ER16-HFX31-24
- ER16-SX-08
- ER16-08
- GPIM-01
- GPIM-08
- ER16-TX-24
- ER16-GTX32-08

Edge (Matrix E1 & VH)

- 1H582-51
- 1G-2GBIC
- GPIM-01
- VH-8TX1MF

Management (Netsight Atlas Console & Policy Mgr.)

- NSA-CD
- NSA-PM-CD

IDS (Dragon 6.0 w/ WIN and LNX host)

- DSEMA
- DSNSA-FE200-TX

- DSHSS-WIN
- DSHSS-LNX
- *Wireless (RoamAbout R2)*
- RBTR2-AB
- RBTRC-MZ
- RBTBF-AX
- CSI6CD-AW-128
- Hyperlmr400
- Hyperamp500
- HyperOmni10db
- HyperOmni8db
- HyperYagi14
- Hypertail 25cm

PART LIST 3

Terminal 1 Equipment

- Passport 8610 10 slot Chassis Bundle. Includes 8010 chassis, one 8004AC power supply, one 8691SF Switch Fabric and Routing Software License. (Includes North American power cord)
- 8004AC 100-240 VAC Power Supply. At least one power supply required per 8006, 8010, or 8010co chassis. (Includes North American power cord)
- Passport 8691SF Routing Switch Module CPU/Switch Fabric module - One required for per Passport 8000 Routing Switch chassis. Note: Includes PCMCIA flash memory card.
- Passport 8648TXE Routing Switch Module. 48 port auto sensing 10BASE-T/100BASE-TX Ethernet Layer 3 switching interface.
- Passport 8616SXE Routing Switch Module. 16-port 1000BASE-SX Gigabit Ethernet interface module.
- Passport 8608GBE Routing Switch Module. 8-port 1000 Base GBIC (GBICs sold separately).
- 1-port 1000Base-SX Gigabit Interface Converter (GBIC)
- 1-port 1000Base-LX Gigabit Interface Converter (GBIC)
- Business Policy Switch 2000 Auto sensing Policy Switch (24 10/100BASE-TX plus 1 MDA and 1 Cascade Slot) (Includes North American power cord)
- 1-port 1000Base-SX Gigabit Interface Converter (GBIC)

Terminal 2 Equipment

- Business Policy Switch 2000 Auto sensing Policy Switch (24 10/100BASE-TX plus 1 MDA and 1 Cascade Slot) (Includes North American power cord)
- Passport 1424T Routing Switch with 24 10/100TX ports and 2 GBIC slots. (Includes North American power cord)
- 1-port 1000Base-LX Gigabit Interface Converter (GBIC)
- BayStack 450-1GBIC MDA (GBIC is not included with this MDA. Supported GBIC's are AA1419001 (SX), AA1419002 (LX), AA1419003 (XD) and AA1419004 (ZX).
- 1-port 1000Base-SX Gigabit Interface Converter (GBIC)

Remote Parking

- Passport 1424T Routing Switch with 24 10/100TX ports and 2 GBIC slots. (Includes North American power cord)
- 1-port 1000Base-LX Gigabit Interface Converter (GBIC)
- 10223 John Sanders
- Passport 1424T Routing Switch with 24 10/100TX ports and 2 GBIC slots. (Includes North American power cord)
- 1-port 1000Base-LX Gigabit Interface Converter (GBIC)
- Business Policy Switch 2000 Auto sensing Policy Switch (24 10/100BASE-TX plus 1 MDA and 1 Cascade Slot) (Includes North American power cord)
- 450-1LX 1-port 1000BASE-LX Single PHY MDA (for BayStack 350, 450 and Passport 8000 Edge Switches).
- BayStack 450-1GBIC MDA (GBIC is not included with this MDA. Supported GBIC's are AA1419001 (SX), AA1419002 (LX), AA1419003 (XD) and AA1419004 (ZX).
- 1-port 1000Base-SX Gigabit Interface Converter (GBIC)

Fire Station 23

- Passport 1424T Routing Switch with 24 10/100TX ports and 2 GBIC slots. (Includes North American power cord)
- 1-port 1000Base-LX Gigabit Interface Converter (GBIC)

Parking

- Passport 1424T Routing Switch with 24 10/100TX ports and 2 GBIC slots. (Includes North American power cord)
- 1-port 1000Base-LX Gigabit Interface Converter (GBIC)

5 Story Parking

- Passport 1424T Routing Switch with 24 10/100TX ports and 2 GBIC slots. (Includes North American power cord)
- Business Policy Switch 2000 Auto sensing Policy Switch (24 10/100BASE-TX plus 1 MDA and Cascade Slot) (Includes North American power cord)
- ids,spare parts,training,wireless,maintenance

Wireless

- Avaya AP-3 Access Pt
- Directional Antennae
- 1 watt amplifier

Alteon ISD

- Alteon WSM. 4-port 1000BASE-SX Gigabit or 10BASE-T/100BASE-TX Ethernet Layer 4-7 Web Switching Module.

Network Management

- Optivity Enterprise NMS 10.0 for MS Win2000 & WinNT4. Includes support for HP Network Node Manager and Tivoli TME 10 Netview. Also includes NMS 10.0 Client for Win'98/NT4/2K. Maximum licensed Network Element IP addresses,5000

VPN Contivity 2700

- Contivity 2700, 2000 tunnels, 3 PCI Expansion Slots, Dual 10/100 Ethernet LAN Ports, Server S/W with (128-bit) Encryption, Contivity VPN Client for Windows, (Includes Documentation). No Pwr Cord. (See Note 1)

Spares

- Business Policy Switch 2000 Auto sensing Policy Switch (24 10/100BASE-TX plus 1 MDA and 1 Cascade Slot) (Includes North American power cord)
- AP-3 Access Point
- Passport 1424T Routing Switch with 24 10/100TX ports and 2 GBIC slots. (Includes North American power cord)
- 1-port 1000Base-SX Gigabit Interface Converter (GBIC)
- 1-port 1000Base-LX Gigabit Interface Converter (GBIC)